

19981201.qrp v01_n293.qrs.981201

Date: Tue, 1 Dec 1998 19:12:50 EST

From: qrp-l@Lehigh.EDU

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: QRP-L digest 1293

QRP-L Digest 1293

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- 4) [26235] Dual Sec, Air Var Cap
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- 17) [26248] Painting and TenTec Filters
by Chuck Adams <adams@ticnet.com>
- 18) [26249] Re: Windows 98 funny....
by Hank Kohl K8DD <k8dd@contesting.com>
- 19) [26250] CQWW Report - a bit longwinded - hit delete!

- by Tim Pettibone <tpettibo@NMSU.Edu>
- 20) [26251] MFJ Switching Power Supplies
by "Daniel Watkins" <watkins@socketis.net>
- 21) [26252] Atlanticon 99 QRP Forum - date, location & speakers
by "George Heron" <gheron@idt.net>
- 22) [26253] Dans December Specials are up!
by Jerry Parker <jparker@fix.net>
- 23) [26254] Re: Printing Help
by "Frank" <ke6vhm@earthlink.net>
- 24) [26255] Cq WW Report & comments
by "Lawrence T. Owens" <w4dec@dibbs.net>
- 25) [26256] RE: MFJ Switching Power Supplies
by "Mark McPherson" <markm@teleport.com>
- 26) [26257] Re: Converting a VECTRONICS VEC-645 into a Z-Match
by "Radman" <radman@best.com>
- 27) [26258] Re: Cq WW Report & comments
by Bob Patten <n4bp@bc.seflin.org>
- 28) [26259] FS: TenTec Argonaut 505
by DaveLeDuc@aol.com
- 29) [26260] Re: Antenna's West
by "david r" <elbc@pivot.net>
- 30) [26261] Re: CQWW Report - a bit longwinded - hit delete!
by Elekktron1@aol.com
- 31) [26262] For N0TU ...
by "Robert Armstrong" <barmstrong@sisna.com>
- 32) [26263] RFI: Vectronics Kits
by K0RWC <rwcfrii.com>
- 33) [26264] Atlanticon
by "C. Lamar Derk" <n3at@epix.net>
- 34) [26265] RE: CQ WW Report & Comments
by jbartac@max.state.ia.us (Jerry Bartachek)
- 35) [26266] RE: Printing Help
by Brad Mugleston <bmug@gw1.com>
- 36) [26267] Re: Converting a VECTRONICS VEC-645 into a Z-Match
by Lee Bahr <bahr521@earthlink.net>
- 37) [26268] Re: BNC: NC40, 40A, Sierra, SST... K2... see a pattern here? :)
by "Phillips Richard" <phillips@msoe.edu>
- 38) [26269] Re: CQWW Report - a bit longwinded - hit delete!
by Monte Stark <ku7y@dri.edu>
- 39) [26270] Re: Dans December Specials are up!
by "Gene Hall" <evhall@ix.netcom.com>
- 40) [26271] Re: Question
by Ab7wy@aol.com
- 41) [26272] Re: NF3I now a 7-land-er!
by "Bill Todd" <bill@willapabay.org>
- 42) [26273] 1340 SOLD
by James Parsons <k5rov@wcc.net>
- 43) [26274] Re: Painting and TenTec Filters

by Chuck Adams <adams@ticnet.com>
44) [26275] RE: CQ WW Report & Comments
by Chuck Adams <adams@ticnet.com>
45) [26276] CQC Swap List
by "Marshall Emm" <mgemm@mtechnologies.com>
46) [26277] Re: Switching power supply question
by Laura Denise Halliday <lha@sdr.utias.utoronto.ca>
47) [26278] WTB:Knobs
by Bill Jones <kd7s@psnw.com>
48) [26279] Re: Windows 98 funny....
by we6w@juno.com (Ed Loranger)
49) [26280] Signing /QRP
by "Kevin F. Glynn" <kfglynn@prodigy.net>
50) [26281] TS-830 alignment
by mikemo@ibm.net
51) [26282] FOX on Tonight?
by "Wilford D. Lindsey" <70511.3041@compuserve.com>
52) [26283] Auto Bandswitch PIC
by "Steven Weber" <kd1jv@moose.ncia.net>
53) [26284] 11-2-10 kits, sold out
by "Steven Weber" <kd1jv@moose.ncia.net>
54) [26285] Handful of 10-turn pots available -- first come first serve!
by "Jerry McCollom W0MC" <w0mc@hotmail.com>
55) [26286] Computer Morse Kybd
by dave_epps@juno.com
56) [26287] Vectronics cw filter w/amp
by tom whalen <whalen@swcp.com>
57) [26288] Re: Handful of 10-turn pots available -- first come first
serve!
by Niel Skousen <skousen@srv.net>
58) [26289] CQ WW CONTEST
by "DONALD G. DORN" <DDORN@swbell.net>
59) [26290] Feedline from basement ideas?
by "Jeff Logullo - SE Sun St. Louis" <Jeff.Logullo@Central.Sun.COM>
60) [26291] Re: CQ WW CONTEST
by Bob Patten <n4bp@bc.seflin.org>
61) [26292] Address Change & Server Problems
by Bruce Hopkins <bhopkins@ptialaska.net>
62) [26293] Atlanticon Announcement
by ki6ds@dpol.k12.ca.us (Hendricks, Doug)
63) [26294] Re: Handful of 10-turn pots available -- first come first serve!
by "Jerry McCollom W0MC" <w0mc@hotmail.com>
64) [26295] Re: Signing /QRP
by "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
65) [26296] Re: Feedline from basement ideas?
by "Michael G. Heitmann" <michael.g.heitmann@boeing.com>
66) [26297] Re: Signing /QRP
by Bob Patten <n4bp@bc.seflin.org>

- 67) [26298] KH7 not Kure Island in CQWW
by Gary Hembree <gary.hembree@asu.edu>
- 68) [26299] Re: MFJ Switching Power Supplies
by "Tim Cook" <timcook@erinet.com>
- 69) [26300] RF Designs Book buy - aftermath
by Niel Skousen <nskousen@scientechnology.com>
- 70) [26301] Diode Protection/OHR-alignment.
by Ed Loranger <we6w@qsl.net>
- 71) [26302] Grid Dip Meter LDM-810
by =?iso-8859-1?Q?Vicen=E7=20Ll=E0rio?= <vllario@eic.ictnet.es>
- 72) [26303] Power measurement on 2 m and 70 cm with directional coupler?
by Arjen Raateland <Arjen.Raateland@vyh.fi>
- 73) [26304] Re: Feedline from basement ideas?
by applitech@mcg.net (Claton Cadmus)
- 74) [26305] Re: Resonant Speaker MEASURED RESPONSE.
by Dan Tayloe-P26412 <Dan_Tayloe-P26412@email.mot.com>
- 75) [26306] Want to buy
by Ed Manuel <n5em@flash.net>
- 76) [26307] Re: Technical question
by Dan Tayloe-P26412 <Dan_Tayloe-P26412@email.mot.com>
- 77) [26308] Test Equipment = More fun!
by Ed Loranger <we6w@qsl.net>
- 78) [26309] TS-830 Alignment problem
by mikemo@ibm.net
- 79) [26310] FOX TONIGHT!! NOUR
by Jim NOUR <n0ur@yahoo.com>
- 80) [26311] Re: TS-830 alignment
by Michael Melland <badger@vbe.com>
- 81) [26312] USERM ...? Not QRP
by DENNISMO@aol.com
- 82) [26313] Spectrum Analyzer is mine!
by Ed Loranger <we6w@qsl.net>
- 83) [26314] Color codes
by Bob Liesenfeld <wb0poq@visi.com>
- 84) [26315] Re: Computer Morse Kybd
by "Radman" <radman@best.com>

Date: Mon, 30 Nov 1998 19:05:43 -0500
From: hamjoel@juno.com
To: qrp-l@lehigh.edu
Subject: [26232] Rtty QRP QSO's WANTED...
Message-ID: <19981130.190727.-303319.0.hamjoel@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

hIGH gang

well I think I have the ole qrp++ ticking away at rtty and am looking for someone to chat with.... rtty seems rare on the air.... (that's fair, an't it)... :-)

My cajun mama wants her son to enjoy some rtty... qrp style... and she promises to cook up some shrimp gumbo. with okra and all the goodies... and if dad comes thru.... we might have some aligator tail, to boot... (er, eat)

So come one, come all, to my rtty request. I'm just a qrp signal at 4 watts with a half square on forty and a w8jk on twenty... what's ur frequency to work...

Oh, my cajun mama would be so proud of you for making her son so happy...

Joel, wa5cvm, displaced cajun, in maine, rtt and y-ing

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or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 30 Nov 1998 19:25:45 -0500
From: Harry Bump <bump-km3d@redrose.net>
To: QRP-L <qrp-l@lehigh.edu>
Subject: [26233] Wow! Was than and interesting experience or what, dude?
Message-ID: <36633789.E160A68C@redrose.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I'll agree with Nils.....men, I was sorely tempted to vault into the fray; but while the weather was nice yet in the northeast I spent an hour or so on making sure the old snowblower would fire up (hence the current 'heatwave' - today it almost hit 70f in PA).and that K2 project is looking better and better!

73,

Harry, Km3D
ARCI#3875, etc.

Date: Mon, 30 Nov 1998 16:33:36 -0800
From: "Dan Trigilio" <danjt@cruzio.com>
To: <qrp-l@Lehigh.EDU>
Subject: [26234] A Thank you to all.
Message-ID: <001101be1cc2\$3ca91660\$bf5de2d0@n1dt-s-computer>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

A big THANK YOU to all who responded to my question about the TRW swapmeet.
Still hoping some one out there in QRP-L land has any info on the Nye SKM-1
Keyer. GL es 73, Dan N1DT/6

Date: Mon, 30 Nov 1998 17:06:18 PST
From: "Greg Breeden" <al0a@hotmail.com>
To: qrp-l@lehigh.edu
Subject: [26235] Dual Sec, Air Var Cap
Message-ID: <19981201010619.4121.qmail@hotmail.com>
MIME-Version: 1.0
Content-Type: text/plain

Group:

I need a Dual Section Air variable Capacitor. I making a tuner and need
a Variable Cap with two sections 250pf each. I have the rest of the
components and would like to find a tuning cap with a high (1-3KV)
voltage rating. This is not a must for QRP but the rest of my parts are
of the same power rating (or close to it).

If any one has this and would like to part with it, I could give you a
reasonable price. Secondly, If you know of a supplier that has one new
let me know.

Thanks

Greg, AL0A

Get Your Private, Free Email at <http://www.hotmail.com>

Date: Mon, 30 Nov 1998 18:31:52 -0700 (MST)
From: "John Kirk, VE6XT" <jakirk@calcna.ab.ca>
To: qrp-l@lehigh.edu
Subject: [26236] Re: Crystal Tester (fwd)
Message-ID: <Pine.A32.3.93.981130183142.48014F-100000@srv1.calcna.ab.ca>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

----- Forwarded message -----
Date: Sun, 29 Nov 1998 08:03:41 -0700 (MST)
From: "John Kirk, VE6XT" <jakirk@calcna.ab.ca>
To: qrp-l@lehigh.edu
Subject: Re: Crystal Tester

Bob, you might have to take a different tack with those 70 MHz crystals. As odd as it sounds, a 70 MHz crystal really isn't really a 70 MHz crystal. It is likely a 23.333 (one-third) or 14.000 (one-fifth) MHz rock cut in such a way as to encourage oscillation on an overtone. If all you need is a simple go/no-go test, drop it into your existing tester. Without even having seen the circuit, I can pretty much bet that it will oscillate on its fundamental. This can be verified with a receiver or counter.

If you want to verify output on 70 MHz, we have to use an oscillator designed from the word go to work on the desired overtone. It is pretty easy to get an overtone rock oscillating on the wrong overtone (the 3rd instead of the 5th, for example), so most overtone oscillator circuits contain at least one LC tuned circuit to discourage the unwanted modes. But, by putting a tuned circuit, we've lost the "dc to daylight" characteristic you wanted from the tester. There is no easy answer to this one!

73
John

Date: Mon, 30 Nov 1998 20:05:04 -0600
From: Wayne Alexander <walexan@ipa.net>
To: qrp-l@lehigh.edu
Subject: [26237] Re: Vanity Calls
Message-ID: <199812010205.UAA26873@ns3.ipa.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Applied for mine today and sent the money off today. Will see how long it takes to get it back. Have a great day.

73,

KB0PTE

Wayne

FISTS # 4907

QRP-L # 1058

Date: Sun, 30 Nov 1997 21:25:28 -0500
From: "Harry T. Hurst, WA3PTG" <hhurst@delaware.infi.net>
To: <qrp-l@lehigh.edu>
Subject: [26238] Re: Windows 98 funny....
Message-ID: <199812010222.VAA12446@fh105.infi.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

\$86 for software???? I could buy a rig for that much money!!!!!!

That's funny, \$86 for an operating system. A friend gave me a Linux CD the other day and said, why don't you go make a copy of this CD. It's legal, & free, and it makes even junk hardware seem fast. It do make my 486's fly.

OB QRP: sent my first email QSL to a VE7 I worked tonight on my TT 1320. Like my momma always said, "20 meters is like a box of chocolates, you never know who you will work."

Keyers: somewhere in my basement there is a nice hb keyer and a 32 meg simm. Can't find either one of them. I think I need to rent a dumpster. Until then, it's the J-38 for me.

72 & 73
Hap, WA3PTG

Date: Mon, 30 Nov 1998 21:33:05 -0500 (EST)
From: Bruce Muscolino <w6toy@erols.com>
To: QRP-L@LEHIGH.EDU
Subject: [26239] Worked my first 2N2/40
Message-ID: <2.2.16.19981130212337.38871448@pop.erols.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Gang,

Saturday afternoon I talked my self into getting on the air for a bit. After playing around in the CQWW (my ears are still not really up to it) I switched down to 40 meters and found a QSO between W3MT and WJ2V. Interesting, I've worked both of these fine gentlemen before. When their QSO ended I jumped in and called Preston. He an I go backa couple of years, to the first FDIM.

We had a great QSO filled with questions about the state of my health and his rig. My health is getting slowly better and his rig was the 2N2/40! I want to say there's nothing wrong with that rig except maybe it hears me! It is as noce sounding a transmitter as you could ask for -- I'm thinking about building one myself!

BTW, I worked about 15 stations in the CQWW -- mostly Europeans.

73

Date: Mon, 30 Nov 1998 21:14:58 -0500
From: w4bws@juno.com (Donald E Sanders)
To: wb5rue@stic.net
Cc: qrp-1@Lehigh.EDU
Subject: [26240] Re: Straight Key Base
Message-ID: <19981130.213442.-1013847.0.W4BWS@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

You can sometimes find pieces of marble at toimestone cutting companies and various rocks at fireplace and tile sales and installers.

Donald E. Sanders W4BWS
694 E. Eau Gallie Blvd. Satelllite Beach, Fl 32937
407-779-0222 Fax 407-779-0830
E-mail to w4bws@juno.com
My favorite QRP rig glows in the dark

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or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 30 Nov 1998 18:55:43 -0800
From: dave_epps@juno.com
To: qrp-1@lehigh.edu
Subject: [26241] QRP CLOVER
Message-ID: <19981130.190237.-55505.6.dave_epps@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

The DXP38 (external dsp hf radio modem) is from Hal Comm. Corp.
www.halcomm.com.
They have made a modem similar to this one for years. It was in internal
board for p.c.'s Made for:
Clover - 2
Baudot & Ascii rtty
Amtor
P-Mode price \$395.00 See Dec. CQ mag. page 77
 dave ab5pc fresno, ca.

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Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 30 Nov 1998 19:35:22 -0800 (PST)
From: Doug Faunt N6TQS +1-510-655-8604 <faunt@netcom.com>
To: dave_epps@juno.com
Cc: qrp-1@lehigh.edu
Subject: [26242] Re: [26214] QRP CLOVER ANYONE?
Message-ID: <199812010335.TAA03988@netcom17.netcom.com>

That sucker's BIG, though.
I was disappointed to find out the size of it.

Another new mode for QRP might be PSK31. I'm being sluggardly and
waiting for the TAPR interface and enclosure for the EVM before I do
it.

73, doug

Date: Mon, 30 Nov 1998 11:53:44 -0800
From: dave_epps@juno.com

The new DXP modem (external DSP38) would sure open up more digital modes to QRP. They said delivery expected mid-december.

dave ab5pc fresno, ca.

Date: Mon, 30 Nov 1998 23:06:41 -0500
From: Richard Arland <k7sz@epix.net>
To: qrp-l@lehigh.edu
Subject: [26243] WTB: Logikey K-3
Message-ID: <36636B51.D3EB056@epix.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Anyone on this list have a Logikey K-3 (that's the new one with the six memory positions) that they want to sell?

If so, private e-mail, only please.

73 Rich K7SZ

Date: Mon, 30 Nov 1998 11:46:50 -0500 (EST)
From: "Curtis D. Levin" <kd4zkw@amsat.org>
To: Ed Loranger <we6w@qsl.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [26244] Re: Windows 98 funny....
Message-ID: <Pine.LNX.4.05.9811301145040.1838-1000000@danial.dialisdn.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 30 Nov 1998, Ed Loranger wrote:

#Just got a recent sale flyer. They have Windows 98 on
#sale at some place using 'Tech_Direct' email address.

#They mention the low discount price of: \$85.95

Question of curiosity. Is that a windows 98 upgrade, or the windows 98 first time user price ? I checked out win98 at office max, and they wanted something in the neighborhood of 180 bux for it. That's way too much for any OS in my book, and a good percentage of the reason why I ended up using linux. OK, ttyl.

Curtis D. Levin kd4zkw.ampr.org [44.98.2.22]
kd4zkw@amsat.org QRP-1 #1488
<http://dialisdn.net/user/cdlevin/>

Date: Mon, 30 Nov 1998 12:09:10 -0500 (EST)
From: "Curtis D. Levin" <kd4zkw@amsat.org>
To: ka7you@juno.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [26245] Re: Thanks for advise, BUT...
Message-ID: <Pine.LNX.4.05.9811301202070.1838-1000000@danial.dialisdn.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 30 Nov 1998 ka7you@juno.com wrote:

#I have a family life, and have had one for almost thirty years. I've
#been married to the same woman for the whole time, and although she is
#not interested in the hobby, she does not mind me participating, and
#spending considerable time at it. I choose to spend a lot of time with
#my family. I enjoy my family life at least as much as the hobby.

Kudos for that one. One of the major precepts of ham radio is that it
isn't supposed to be a 24/7 philosophy.

The suggestions to 'forget the tapes" were definitely off base, if not
#just plain dumb.

Definitely. Get your code practice any way you can. There are alot of
people who feel that code is virtually useless, so they work phone whilst
learning code simply to upgrade, or they get a waiver. By the same token,
there are alot of people who work only code, and figure everyone else
should too, so throw that mike away, bro. I don't know what to say about
that argument. I run a 3 freq packet node 24/7 on vhf/uhf/hf, and Inet,
time permitting. I think everyone should recite ascii by heart. Just
kidding.

#Written one day, checked later that night, and sent with no deletions.
#7 3,

What ? You proof read your flames ? Kewl, I never thought of that. Hey,
wouldn't want to offend anyone, would we ? heh. 73.

Curtis D. Levin kd4zkw.ampr.org [44.98.2.22]

kd4zkw@amsat.org QRP-1 #1488
http://dialisdn.net/user/cdlevin/

Date: Mon, 30 Nov 98 22:41:32 -0500
From: Chuck Adams <adams@ticnet.com>
To: qrp <qrp-1@lehigh.edu>
Subject: [26246] Elmer200: Part 3 - Quartz Crystals
Message-ID: <199812010445.XAA319246@nss4.cc.Lehigh.EDU>

Quartz Crystals

(Note this is first pass and read over several times but I probably missed some English errors and typos. I'll get them corrected later. I just hope that I didn't make any technical errors or omissions. This is a lengthy topic alone and we haven't gotten to oscillators yet.)

Instead of writing a narrative I have chosen snippets of facts and urban legends. If additional details are needed, I can provide them, but this format chosen for this topic in order to lower the word count. I'm sure that are a lot of people that don't want even this much detail, but some do. So let's get started.

- o Piezoelectricity literally means pressure electricity.
- o Piezo (pronounced pi-e-zo) derived from the Greek word piezein which means "to press".
- o A crystal is a set of atoms, molecules or ions arranged in a definite geometric pattern in three dimensions.
- o SiO₂, silicon dioxide, exists in an amorphous form found in many rocks and sand. In its crystalline form it is called quartz. If it was found in nature and formed over a long period of time we call it natural quartz. If it was formed in a short period of time by a manufacturing process we call it man-made quartz or cultured quartz. Man-made is never called artifical quartz because it is the real thing.

The way I visualize the difference between an amorphous compound and a crystal lattice is to visualize 1,000 ping pong balls. Throw them all into a box, shake it a little and you have an amorphous compound. :-)
Now find a box that will hold exactly 10x10 ping pong balls in a

single layer without them moving around. Now stack 10 layers of 10x10 ping pong balls. That is a crystal structure. Not the structure like quartz but you get the idea.

- o A piezoid is a shaped piece of quartz crystal, usually either a rectangular slab or thin circular disk form factor. We will limit our discussion to these form factors.
- o When the crystal is pressed it generates a voltage differential between the surfaces. This effect can be used to manufacture pressure transducers like those used in electronic bathroom scales, postal scales, etc. If we apply a voltage between the two surfaces of a crystal we can cause a change in the physical dimensions.
- o The first broadcast station to be crystal-controlled was WEAQ in New York City in 1926.
- o Quartz is fabricated using large autoclaves with crystal seeds placed in them with superheated water solution containing pure silica and sodium carbonate to raise the alkalinity of the water and make the SiO_2 more soluble. The temperature gradient in the autoclave is controlled by computers so that the silica in the bottom through convection is carried up to the seeds and deposited and the crystal is literally grown in place. It takes about a month to grow a bar of quartz about 2x3x15cm and several of these are grown in each autoclave. Also the internal pressure in the autoclave is about 1000 atm and the temperature 350 C.
- o The crystal structure is hexagonal and due to the nature of the atomic arrangements the physical properties
 - elastic modulus and compliance
 - thermal conductivity
 - electrical conductivity
 - coefficient of thermal expansion
 - hardness
 - solubility
 - dielectric constants
 - piezoelectric constants
 - index of refraction
 - velocity of propagation of longitudinal (sound) waves
 - velocity of propagation of shear wavesall are anisotropic, i.e. their value depends upon direction in the material. The orientation of the surfaces of the piezoid relative to the crystal lattice structure effect the resulting properties of the crystal.
- o The study of the physics of all of this requires working with a number of 6x6 matrices. Let's not go into details here. :-)

- o You hear people talk about X-cut, Y-cut, AT-cut, and BT-cut crystals and others. Most crystals that are used in electronics are AT-cut due to the frequency-temperature curves centered about 25 C. The AT-cut is done at an angle of 35.25 degrees from the Z-axis of the crystal lattice and changes of only a fraction of a degree for this angle can greatly influence the values for the curve. See page 14.23 for the frequency-temperature curves. The angle of orientation is only about 2 degrees between each of the three curves just to give you an idea how sensitive the values are.
- o X-ray diffraction is used to align the crystal for cutting as sighting by human beings using optical means will not be accurate.
- o There is a bunch of math that you can do for vibrational modes of various geometries too tedious to show here. But if you have a fundamental resonant mode of frequency $f(0)$, then the natural harmonic resonances occur near odd multiples of this frequency. It may surprise most of the audience but if you have a crystal at 7.000MHz the third harmonic will not be at 21.000MHz but at a lower frequency. Also because of the physical size and shape there are additional resonant frequencies called spurious modes (spurs). To further complicate things all these are temperature dependent. Ever see a crystal circuit start oscillating just fine then after a while stop? Sometimes one or more of the spurs will move to or near a resonant frequency and coincide with the desired resonant frequency causing a activity dip or cause the frequency to skip, i.e. move around to another frequency and then stabilize.

Read page 14.22 for the discussion of more details on why the harmonics are not integer multiples of the fundamental.

In the older crystal designs where the piezoid was square (FT-243 form factor) the piezoid was held between two metal plates around its edges or corners. The boundary conditions caused even and odd modes and increased the number of spurs. This is one of the reasons for the abandonment of the form factor along with economic factors too numerous to list here. Also why some people in grinding these caused them to cease activity. Especially when using lead pencil to lower the frequency. I can go into a lengthy discussion on this and why I don't recommend it for the casual amateur.

- o Current crystal technology uses the circular form factor to reduce the number of spurs and reduce the overhead in fabrication, grinding, etc. I had a photograph on my web page for several years showing the inside of the HC-49/U crystal holder. The crystal itself was circular with electroplated circular areas on both sides. The area not plated is a 'dead area' in that it does not vibrate and allows the mounting wires

to clamp and not greatly effect the resonant frequency and activity of the crystal. Also tricks are played on the surface curvature to reduce or eliminate spurs. The curve on page 166 of Dr Bottom's book on the quartz unit is a curve similar to data that I was taking over 30 years ago. My how time flies. :-)

- o See figure 14.19 on page 14.22 of the HB for the typical configuration of a crystal. Usually one uses a stiff wire to the leads of the holder instead of the connection wires as shown in the diagram. I'll post when I get the pictures of actual crystals back on the web page.
- o See page 14.23 figure 14.21(B) for the equivalent circuit for a crystal unit. $C(0)$ can be simply measured using a capacitance meter like the AADE unit, since the test frequency is far removed from the fundamental crystal frequency. I measured about 3.1pF for a HC-49/U form factor, 10.5pF for a FT-243 unit, and 1.4pF for the smaller HC-49/US crystals. Remember these values as we will come back to them. $C1$ may be on the order of 6.6×10^{-15} F and $L1$ around 33mH and $R1$ may be anywhere from 15 ohms to several hundred where the higher values are undesirable for $R1$. The $C1$ and $L1$ values here are for a 10MHz crystal. Wes Hayward in his book on RF Design shows values of 95.48mH and 0.01061pF for a 5MHz crystal, so you can see the ballpark figures of what is realistic for typical crystals.
- o If we take the equivalent circuit for the crystal and work out the mathematics, we can find that there are two solutions for resonant frequencies. $f(R) = 1/(2\pi \sqrt{L1 \cdot C1})$ which is called the series resonant frequency and $f(A) = (1/(2\pi)) \sqrt{1/(L1 \cdot C1) + 1/(L1 \cdot C0)}$ which is called the antiresonant or parallel frequency. But there is a problem here in that $C0$ is in parallel with external capacitances giving a $C(t)$ which should be substituted in the formula. Thus there are a very large number of resonant frequencies, not just two as someone mentioned the other day in a posting.

Another thing to watch out for. When someone orders a batch of crystals from the manufacturer they have to specify either series resonance and the desired frequency or if parallel then the additional parallel capacitance in the circuit so that in the manufacturing process all this can be accounted for. The frequency stamped on the crystal case does not tell you anything about whether the crystal was intended for series or parallel resonance. So buyer beware.

- o At series resonant frequency the impedance of the crystal for all practical purposes is $R1$ and is a good approximation. For a good crystal with a high unloaded Q this value should be in the range of 10 ohms. For parallel resonance the impedance is $Z = 1/(\omega \cdot \omega \cdot C0 \cdot C0 \cdot R)$ where ω is $2\pi \cdot f$. The impedance at parallel resonance is also pure resistive and on the order of

1,000 to 10,000 ohms.

- o See page 14.27 for a simple VXO discussion. Let me come back to this later and the so called Super-VXO with parallel crystals. Not as rosey as some people think. And certainly a difficult topic. The pulling of crystals over a wide range of spectrum can lead to some serious side effects and this posting is getting too long already. Things like C1 to C0 ratios determine frequency range for pulling. I'll try to get back to this when we start moving things around in actual circuits. The actual circuit parameters determine the limits of pulling the frequency also.
- o Thermal heat is a killer. Typical crystal should not be run at more than 1 to 2mW or heat buildup, besides causing drift, may cause thermal stresses large enough to fracture the structure and permanently damage the crystal.

The new crystal form factors may fail rapidly in old tube type equipment due to the larger crystal currents needed for operation.

- o Crystals can be manufactured in large quantities for under \$1.00 USofA currency. But you need large numbers.
- o Over 1,000,000,000 crystal units are manufactured every year and increasing. We use these puppies in every TV, radio, cell phone, microcomputer, modem, most watches, I found one in a Panasonic answering machine at 14.060MHz that was a killer in a QRP ARCI contest one time. The only good thing was that it didn't drift and it was there day and night. :-)

One thing that I just thought of. There are almost 6,000,000,000 humans on this orb we call the planet Earth. Did you know that there are more crystal units than humans? It boggles the mind..... How many has this group used in kits alone? :-)

- o Remember that every component has R, L, and C values. It's just that one can neglect some of these at certain frequencies and under certain conditions and restraints.

My thanks to Dr Virgil E. Bottom who taught me what little I know and remember about the topic (not his fault) and we have others in the group that can add additional information that I have omitted that might be important or interesting. It was over 30 years ago when I first started working with the nitty gritty of quartz years and after taking FT-243 crystals and grinding them to move up into the Novice band on 40 meters in 1957 era. Before the BC stations moved in with a vengeance.....

Now we can start on Wednesday of this week (December 3rd 1998) with the simple oscillator in the crystal checker and play with components and look at the behaviour. Get the laboratory ready Scottie.

FYI

--

Chuck Adams K5FO adams@ticnet.com CP-60
<http://www.ticnet.com/k5fo>

Date: Mon, 30 Nov 1998 21:56:27 -0700
From: Jerry Conover <jerry.conover@NAU.EDU>
To: qrp-1@Lehigh.EDU
Subject: [26247] CQWW-CW pirate?
Message-ID: <366376FB.8012C983@nau.edu>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

To those who enjoyed working the CQWW-CW contest this weekend I pose this question:

Did anyone work VP2LX? I did, and listened carefully to confirm the station's call sign, for my logging program didn't want to assign it to a country (not VP2E or VP2M or VP2V) -- thus, no point credit. Some who were listening on frequency offered such utterances as "slim?" and "QTH?" So, if you have any info as to whether this was a legitimate station and, if so, what the country was (s/he claimed Zone 8), I'd surely like to know about it!

72 de AB7II
Jerry

Date: Mon, 30 Nov 98 23:10:25 -0500
From: Chuck Adams <adams@ticnet.com>
To: qrp <qrp-1@lehigh.edu>
Subject: [26248] Painting and TenTec Filters
Message-ID: <199812010508.AAA365234@nss4.cc.Lehigh.EDU>

Gang,

OK. I'm slow but I get there. Today I figured out the secret of painting a NorCal K8FF base. Well, I finished it today.

All this started when Jerry Parker wanted a picture of the NorCal paddle for the web. Well the old paddle had a ding on a corner where the K5F0/N5AN patented wrinkle finish came lose. No problem, I have a new one unbuilt in the Jim Cates patented mailer and it's one of the "narrow" paddle critters.

First of all, I have a piece of board about one foot on a side and with some small pieces I fix a square to hold the base down flat. I take LEATHER gloves and a belt sander and polish the sides. Then placing the base into the sanding jig I proceed to nicely flatten and smooth out the top and bottom of the base.

OK, fine. Get the KRYLON (tm) sandable primer and coat one side. Now into the oven at 170 F over a 24 hr period on and off. Phyllis is a manager at TU Electric but I gotta pay for the juice just like you do. :-) Besides its like spring in TX and the rest of the country. Something to do with global warming and El Nina..... No need warming up the house this weekend. Do other side during this time period also.

Then had some nice Navy Blue KRYLON (tm) :-) and did a coat on the bottom of the base first. Hey, this is the side that I don't care about and most likely to get scratched during the process. Again cooked it on and off for 24 hrs at 170 F. These new digital displays on the oven and microprocessor controlled work wonders. Leaving the door closed held the temperature above 100 F for hours. OK, out of the oven and the surface is like a mirror. Gotta be the best paint job I've ever done and I've worked on painting a lot. Just didn't like using the oven before but it's a must from now on.

I found out, from the overspray on the aluminum K5F0 case that I was using, that if I ran a fingernail over the paint and it scratched then the cooking process was not done. Can't do the other side and the sides until tomorrow after the walk. This is gonna be fun. Blue base, brass parts, and fire engine red plastic paddles.

Film at 11.

OK, someone with a Corsair or higher TenTec. I need the part values for the 1.8K, 500 and 250 Hz filters. I have the docs somewhere but not readily available. I think I have a solution to an expensive problem.

Film at 11:15 on this one. :-)

30 states and counting on 17M. I'm surprised that noone posted the Solar Flux value today was nearly 170!!

FYI

--

Chuck Adams K5FO adams@ticnet.com CP-60
<http://www.ticnet.com/k5fo>

Date: Tue, 01 Dec 1998 00:12:49 -0500
From: Hank Kohl K8DD <k8dd@contesting.com>
To: kd4zkw@amsat.org
Cc: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [26249] Re: Windows 98 funny....
Message-ID: <3.0.5.32.19981201001249.0093d9f0@192.0.0.1>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 11:46 AM 11/30/98 -0500, Curtis D. Levin wrote:

>On Mon, 30 Nov 1998, Ed Loranger wrote:

>

>#Just got a recent sale flyer. They have Windows 98 on

>#sale at some place using 'Tech_Direct' email address.

>#

>#They mention the low discount price of: \$85.95

>

>Question of curiosity. Is that a windows 98 upgrade, or the windows 98

>first time user price ? I checked out win98 at office max, and they wanted

>something in the neighborhood of 180 bux for it. That's way too much for

>any OS in my book, and a good percentage of the reason why I ended up

>using linux. OK, ttyl.

Linux....wise choice! That would be the first choice and Windows NT second choice and Windoze 98 or 95 forth choice.
There are ways to get around having to buy the full version which is over priced, and even at \$85 the 98 upgrade is also over priced.

73 Hank K8DD

Date: Mon, 30 Nov 1998 23:04:44 -0700
From: Tim Pettibone <tpettibo@NMSU.Edu>
To: qrp-l@lehigh.edu
Subject: [26250] CQWW Report - a bit longwinded - hit delete!
Message-ID: <1.5.4.32.19981201060444.0067543c@cnmailsvr.nmsu.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

With all of the great posts I'm embarrassed to admit that I really worked hard at this CQWW. Net results:

BAND	Qs	Q points	Mults	DXCC	ZONES
40m	29	65		15	12
20m	12	27		9	8
15m	33	90		14	11
10m	72	172		22	15

Total points: 37,524

Worked 22 actual zones and 39 DXCC countries. Actually did WAC on 40m! Amazing.

One serious question - anyone else have a problem with OT8T? - I think he was in Belgium and I worked him on 40m. My computer logging program, LOGic, gave me 3 points but didn't give me a DXCC multiplier. Am I missing something?

Worked BY2A - and, boy was I excited - China! But he gave the zone as 8 - the caribbean! I went back and listened carefully and he WAS sending BY2A but he was 6Y2A!

Worked lots of Japanese on all bands, including 40m. Europe was there but slightly more scarce from here.

Equipment - TS140S @ 4.5 Watts, Antenna- 66' zepp up 18' fed with 300 Ohm leader. CMOS II keyer, LOGic software plus keyer interface, and a newly revitalized JM March R-3A brass paddle, serial no. 040. This time there were only a couple of speed demons that I couldn't keep up with. Did take a few "listens" on several to be able to copy what must have been 40 wpm+. I'm not convinced that these really fast guys do better because of it - I'm going to watch the listings and see how well they did do.

I didn't keep track of the hours, but many of them were just listening to the huge pileups. Never did break the big ones but I waited around a long time for such trophies as 5V7A, and EA9EA.

Sorry for the long-winded report - but I had fun and as Chuck has said on at least one occasion ... "You be hooked!" Cheers.

Tim K50I
Las Cruces, NM
QRP-L # 73

Date: Mon, 30 Nov 1998 21:27:03 -0600
From: "Daniel Watkins" <watkins@socketis.net>
To: <qrp-l@Lehigh.EDU>
Subject: [26251] MFJ Switching Power Supplies
Message-ID: <91248309701@mail.socket.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi Gang -

In response to Dan's question about switching power supplies, the right points have been made: they can be noisy, need to be designed well, and prefer smooth loads.

So, who has tried MFJ's recent offerings? How well are they designed, and are they as noise-free as the ads say? They would be perfect for my gypsy life (with maybe an IC 706 MKII) >>>>>>>>>> IF <<<<<<<<<<<<<<< they are as good as they are touted to be.

Anyone tried it, or seen the schmatic, or had the covers off?

Daniel Watkins
W3DW

Date: Tue, 1 Dec 1998 01:22:44 -0500
From: "George Heron" <gheron@idt.net>
To: "QRP-L" <qrp-l@Lehigh.EDU>

Cc: "NJQRP" <NJQRP@njqrp.org>
Subject: [26252] Atlanticon 99 QRP Forum - date, location & speakers
Message-ID: <018001be1cf3\$0754c820\$7d3984a9@herong.dialogic.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi all,

The NJ-QRP organizers of the Atlanticon 99 QRP Forum have been real busy since initially announcing last month their sponsorship of this major new east coast QRP event. And now we're very pleased to be able to state with certainty these most important details about Atlanticon:

==> DATE & LOCATION: The Atlanticon 99 QRP Forum will be held on Saturday March 27, 1999 at the Timonium Hamfest, located near Baltimore, MD.

The Timonium Hamfest (officially known as the Greater Baltimore Hamboree and Computerfest) is a yearly event held at the fairgrounds in Timonium, Maryland. This hamfest spans both Saturday 3/27 and Sunday 3/28, and will also be host to the ARRL Atlantic Division Convention, pulling in more vendors and tailgate booths for everyone's browsing and bargaining pleasure. And further, it's rumored that the other very popular hamfest in the area called "Gaithersberg" may not happen in '99, thus ensuring that Timonium will be a very well attended ham gathering here on the east coast.

The Friday evening hospitality suite, the Saturday all-day QRP presentations, and the Saturday evening building contest and vendor night will all be held at the Timonium Holiday Inn Select, directly across the street from the fairgrounds and the hamfest activities. This hotel is designated for official hamfest accommodations and we'll be holding the Atlanticon activities in one of their large conference rooms. Additionally, reduced-rate rooms have been blocked off for Atlanticon attendees.

What a perfect way to kick off the 1999 hamfest and QRP forum season! Shake off those wintertime Goosebumps and get your first dose of the year for pure QRP fun, friendship and homebrewed projects.

==> SPEAKERS: We had previously announced an exciting lineup of prominent and prolific QRP speakers including Dave Benson, NN1G, L.B. Cebik, W4RNL, Joe Everhart, N2CX, and Steve Weber, KD1JV.

Well, we've NOW added to our speaker slate with two absolutely fabulous and well-known QRPers: Paul Harden, NA5N, and Chuck Adams, K5FO. Paul and Chuck have agreed to join us in making the inaugural year for Atlanticon a huge success!

Presentation topics are being settled at the moment, but from the insight I have to the program I can guarantee everyone a riveting and incredibly exciting day of listening to the experts tell all.

More details will come soon on how to reserve your Atlanticon spot at the Holiday Inn. Recommendations for travel and other highlights of this QRP weekend will also be coming soon. For now you can see the Timonium Hamfest website at <http://www.gbhc.org/> for maps, activities, hotel location, etc.

And remember that you can see all the current plans and background information on the NJ-QRP website at: <http://www.njqrp.org/atlanticon/>
Stay tuned as more of the details unfold.

Be sure to reserve the weekend of March 27th for the first QRP event of the season ... it's bound to be a memorable one!

72/73,

--George Heron, N2APB

n2apb@amsat.org in Sparta, NJ

<http://www.njqrp.org> <-- Home of the NJ-QRP Club!

PS: The NJ-QRP Club is the sole sponsor of Atlanticon 99 QRP Forum, and is supported by its proactive membership, kit sales, and very generous and talented members. We are very proud to be able to give back to the QRP community and provide this kind of well-balanced and quality event for all to enjoy!

Date: Mon, 30 Nov 1998 22:44:40 -0800
From: Jerry Parker <jparker@fix.net>
To: qrp-1@LeHigh.edu
Subject: [26253] Dans December Specials are up!
Message-ID: <2.2.32.19981201064440.00683afc@fix.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Dan has put up a super list of December Specials which even includes BNC connectors, including hardware at an unheard of LOW PRICE.

Check it out at: <http://www.fix.net/dans.html>

Enjoy,,,72,,Jerry...WA6OWR...K

Date: Mon, 30 Nov 1998 22:46:41 -0800
From: "Frank" <ke6vhm@earthlink.net>
To: <bmug@gwl.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [26254] Re: Printing Help
Message-ID: <000301be1cf7\$e5642d00\$aa03b2d1@frankwes>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Brad, If I understand you correctly - you are just highlighting the test and trying to drag that to the printer. This will not work because a program must be the transport medium. There is much more than the text that the printer needs to function properly. You are doing it the proper way by using Word. However a much smaller program can be used, Notepad is a great little program for what you are doing.

72 de Frank

Date: Tue, 01 Dec 1998 01:38:16 -0600
From: "Lawrence T. Owens" <w4dec@dibbs.net>
To: qrp-1@Lehigh.EDU
Subject: [26255] Cq WW Report & comments
Message-ID: <36639CE8.21C6@dibbs.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi Gang:

My report pitiful compared to some of the others, but here goes anyway,
Exchanged Info W4DEC RST 04
Hours of operation 23 Hrs 10 Minutes:
Single Band 15 Meters only:

Band	QSOs	Points	Zones	Countries	
15	260	733	24	80	
Total	260	733	24	80	Score 76,232

Conditions seem much improved this year. Lots of real fast code but managed to get all that I heard. Funny thing though one fella was blazing along at about 45 wpm but couldn't copy that fast when sent back to him, Listened to him a few minutes and almost everyone had to slow down to less than 30 wpm before he got their reports and calls correct.

Say , can anyone tell me what those guys are using when their calls are sent at an average speed and suddenly the report sounds like buzzit buzzit ?

Rig used here was ICOM 735 at 5 watts output using a WM2 meter to check the power.

Pete, I know what you mean about needing your sleep. I am also starting to work just single band in these contests, just to get my rest. Just can't cut the long hours any more.

Almost forgot the antenna is a cushcraft A4S at 70 ft.

I hope everone had a wonderful Thanksgiving Holiday with family and friends.

72,

Larry (W4DEC)

Date: Mon, 30 Nov 1998 23:43:17 -0800
From: "Mark McPherson" <markm@teleport.com>
To: <watkins@socketis.net>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [26256] RE: MFJ Switching Power Supplies
Message-ID: <000401be1cfe\$423e4280\$b9adcacc@offshore>
MIME-Version: 1.0
Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Dan,

I've not used the MFJ supplies, but I have two Astron SS-25 switching supplies in use -- one with an "original" IC-706 -- and have been very happy with them for casual use. My biggest concern before purchasing them was,

not surprisingly, RF noise. While I *have* found some supply-related noise, it seems isolated to a few discrete frequencies -- not the broadband noise I've heard from earlier switching designs. I hasten to add that this is opinion, based on listening, unsubstantiated by measurement.

But I'm quite happy with them. No, in fact, I am quite thoroughly delighted with the small size and weight of these designs. No inductor hum at audio frequencies, either. The Astron designs also apparently use thermistors to control fan operation; my '706 doesn't bring the fan on in receive mode at normal ambient temperatures. Joy! QRO transmit of course brings the fan on, but it is a nice fan, quiet, shy and retiring, and goes off after a short delay when the load goes away. I'd say the Astrons are a very legitimate alternative if needed.

I have a fair amount of MFJ equipment here, too, and most of it works very well. Yes, the designs are -- ahh -- "cost-optimized" in some cases -- but MFJ is still making equipment for us to use, unlike many vendors now of legend only, so they are apparently doing some things correctly.

I do think it is prudent to ensure *before* you make your purchase that you can return the supply if it turns out to have noise problems or other issues. I'd suggest this tack for any switching supply, regardless of vendor; I acquired a small 12V "wallwart" switcher made by Icom (and they certainly know a thing or two about radios) in a trade recently. This little guy turned out to be capable of rendering vast portions of the local radio spectrum uninhabitable when placed in service...a sort of metaphoric RF neutron bomb. Caveat emptor, and all that, I guess.

Regards,
Mark McPherson
K7MPH

-----Original Message-----

From: owner-qrp-1@Lehigh.EDU [mailto:owner-qrp-1@Lehigh.EDU] On Behalf Of Daniel Watkins
Sent: Monday, November 30, 1998 7:27 PM
To: Low Power Amateur Radio Discussion
Subject: MFJ Switching Power Supplies

Hi Gang -

In response to Dan's question about switching power supplies, the right points have been made: they can be noisy, need to be designed well, and prefer smooth loads.

So, who has tried MFJ's recent offerings? How well are they designed, and are they as noise-free as the ads say?

They would be perfect for my gypsy life (with maybe an
IC 706 MKII) >>>>>>>>>>>> IF <<<<<<<<<<<<<<< they are as
good as they are touted to be.

Anyone tried it, or seen the schmatic, or had the covers off?

Daniel Watkins
W3DW

Date: Mon, 30 Nov 1998 23:36:17 -0800
From: "Radman" <radman@best.com>
To: <lbbbarley@feist.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [26257] Re: Converting a VECTRONICS VEC-645 into a Z-Match
Message-ID: <199812010742.XAA03060@proxy4.ba.best.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Lee, Bruce et al,

Adding to Bruce's observations, I think the ROI (return on investment) in
gutting the Vectronics tuner is *low*. Seems that you'll easily invest >>
100 bux in the Vectronix, air variable caps, giant toroid donut, shipping
costs, etc, etc. (It's not exactly cheap.) Yet, the upside is the packaging
is already taken care of by Vectronix... and that's always the nastiest
part of any homebrew project. If you go for it, let us know how it turns
out... certainly should look like a tuner anyway ;)

GL es vry 72 - Conrad - NN6CW

ps.... hmmmmm. Ya know, I've personally spent over \$25 packaging simple
keyers. OK, go for it :-)

> Hello, Lee -
>
> What I hear you saying is that for \$80 you are going to get the
following:
> -> cabinet w/ S0239 's
> -> meter
> -> switch/knob
> -> pilot lamp

 \succ

73,

_____ 00000 () 0000 _____

Date: Tue, 1 Dec 1998 06:13:15 EST
From: DaveLeDuc@aol.com
To: qrp-l@Lehigh.EDU
Subject: [26259] FS: TenTec Argonaut 505
Message-ID: <4dfe8e8.3663cf4b@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

I have an TenTec Argonaut 505 5Band SSB/CW QRP transciever for sale \$185 plus shipping from 03858. It is in very good condition. Only modification is the drive control has been moved to replace sensitivity control on front panel. I have a copy of the manual.

73 Dave K1EPJ

Date: Tue, 1 Dec 1998 07:08:05 -0500
From: "david r" <elbc@pivot.net>
To: <kory@avatar.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [26260] Re: Antenna's West
Message-ID: <004401be1d23\$424f32a0\$eb1199d0@elbc>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

----- Original Message -----

From: Kory Hamzeh <kory@avatar.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Sent: Monday, November 30, 1998 5:55 PM
Subject: Antenna's West

>
>I'm looking for some Solar Cell Panels that Antennas West use to sell. I've
>been told they've gone out of business and have re-opened under a new name.
>Does any one have they name/number/web address?
>
>Thanks much & 73 de Kory AC6RN

Hi Kory,

most of antenna west's inventory was bought out by Radio Paul they have a
web page at
<http://www.fix.net/~jparkerr/radiopaul.htm>
73 dave Kc1di /qrp-1 975

Date: Tue, 1 Dec 1998 07:35:14 EST
From: Elekktron1@aol.com
To: tpettibo@NMSU.Edu, qrp-1@Lehigh.EDU
Subject: [26261] Re: CQWW Report - a bit longwinded - hit delete!
Message-ID: <c025b5a9.3663e282@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

I also worked the "BY2A" station...I also thought I had worked China until he sent the zone as zone 8...I'm glad someone else copied "6Y2A" as "BY2A". At least I know it wasn't my imagination!de KK5WL...

Date: Tue, 1 Dec 1998 05:54:07 -0600
From: "Robert Armstrong" <barmstrong@sisna.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [26262] For N0TU ...
Message-ID: <01be1d21\$4cffa060\$e3b4d2d1@barmstrong.sisna.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Steve (N0TU)

Lost ur adr. I have RF1 for you if you want it.
Tech America is selling MFJ259 with Veritronics label this mo. for \$200.
Check it out??

de N7XJ, Bob in Utah.

Date: Tue, 01 Dec 1998 07:10:08 -0700
From: K0RWC <rwc@frii.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Cc: n0wiq@juno.com
Subject: [26263] RFI: Vectronics Kits
Message-ID: <3.0.5.32.19981201071008.00800500@mail.frii.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Folks:

Does anyone have experience with Vectronics kits; specifically the VEC-1202K, 5Watt 2Meter FM XMTR? Good Stuff?

There are a number of interesting kits advertised on P6 of the Dec QST. QRP's rigs, keyers...etc. Kinda looks like MFJ stuff in kit form.

72/3 KØRWC
Rod Cerkoney, QRP-L #1764.
Fort Collins, CO
da di dah

Date: Tue, 01 Dec 1998 09:22:29 -0500
From: "C. Lamar Derk" <n3at@epix.net>
To: Low Power amateur discussion <qrp-l@lehigh.edu>
Subject: [26264] Atlanticon
Message-ID: <3663FBA5.4370@in.epix.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

George - Are the planners aware that the weekend set for Atlanticon is the same weekend as Palm Sunday, an important weekend in the lives of people with religious interests? Many of us were looking forward to attending the first Atlanticon, but the date selected may make it impossible.

72 de Lamar

Date: Tue, 01 Dec 1998 09:13:20 -0800
From: jbartac@max.state.ia.us (Jerry Bartachek)
To: qrp-l@Lehigh.EDU
Subject: [26265] RE: CQ WW Report & Comments
Message-ID: <366423B0.65DB@max.state.ia.us>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

RE: the high speed CW - I used my PK-232 to copy the fast CW in the 'test, and also to send my exchange. Yes you CAN copy CW with a computer! The trick is to set the threshold control on the '232 so the red LED tracks the CW being received. Helps a lot to turn down the RF gain a bit also so the TNC doesn't have to track QRN with the signal.

In fact turning down the RF gain helps when receiving by ear also :-)

I noted the real fast QRQ CW guys can dish it out but not take it! I responded at the speed they used (I can read their speed while receiving on the PK-232) but they couldn't copy! Guys who were at 30 or 35 WPM invariably could copy at the speed they were sending.

I only operated a few hours but had lotsa fun. I found Europe couldn't hear my 5 W sig on 40 meters (slowly QRO'd to 20 W and they began responding). But on 20, 15, and 10, it was a blast! Funny though, Japan was easy on 40 M with 5 W while Europe was impossible for me at that level.

Big Perk: Working a KH7 on Kure Island in a pileup on 40 M using 5 W to my HB 21 foot tall vertical GP fed with ladder line.

72,

Jerry L. Bartachek <>>
Washington, IA
IA QRP #10
QRP ARCI #5166

Date: Tue, 1 Dec 1998 08:14:22 -0700
From: Brad Mugleston <bmug@gwl.com>
To: "'Frank'" <ke6vhm@earthlink.net>, "bmug@gwl.com" <bmug@gwl.com>, Low Power
Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [26266] RE: Printing Help
Message-ID: <01BE1D02.9CAA5020.bmug@gwl.com>

Thanks Frank and everyone else who has sent suggestions,

As many have pointed out I am probably doing it the only way possible.

If there is anyone out there listening it would sure be nice if Outlook had the print "SECTION" capabilities like a lot of other programs.

Thanks for all the help and suggestions.

de KI00T, Brad

-----Original Message-----

From: Frank [SMTP:ke6vhm@earthlink.net]
Sent: Monday, November 30, 1998 11:47 PM
To: bmug@gwl.com; Low Power Amateur Radio Discussion
Subject: Re: Printing Help

Brad, If I understand you correctly - you are just highlighting the test and trying to drag that to the printer. This will not work because a program must be the transport medium. There is much more than the text that the printer needs to function properly. You are doing it the proper way by using Word. However a much smaller program can be used, Notepad is a great little program for what you are doing.

72 de Frank

Date: Tue, 01 Dec 1998 09:53:25 -0600
From: Lee Bahr <bahr521@earthlink.net>
To: radman@best.com, qrp-1@Lehigh.EDU
Subject: [26267] Re: Converting a VECTRONICS VEC-645 into a Z-Match
Message-ID: <366410F5.AF3AEE72@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I ordered one of these tuners from Tech America, yesterday. As soon as I get it I will open it up and let everyone on the list know what I see available for a conversion project. Tech America's deal is on for the rest of the year, through Dec., so if there is someone else considering the project, there is still time to order it from them. As for the cost of cabinets, well, I have purchased really good looking Ten Tec cabinets for some Gary Breed rigs I built that cost me \$35.00 a piece some years ago. A good looking cabinet can dramatically increase the price of a project if you go out and buy a new cabinet. This Vectronics small tuner really looks good, so in the event I turn this project into rubble, I will still have a good looking piece with pilot light. That in itself is worth something! I truly think this \$79.95 tuner altered with some dual broadcast variables along with a new beefy toroid coil, plus the already available dual cross hair meter will be a dynamite qrp tuner. The thing will be small, good looking, work great, and still be capable of more than just a few watts of power. Besides, has anyone looked at the cost of just a dual cross hair swr meter? This thing alone is probably worth \$50.00. The

way I see it, the only pitfall is getting the meter to work at qrp levels when you want to drive it with very low power levels. Lee Bahr w0vt
Radman wrote:

```
> Lee, Bruce et al,
>
> Adding to Bruce's observations, I think the ROI (return on investment) in
> gutting the Vectronics tuner is *low*. Seems that you'll easily invest >>
> 100 bux in the Vectronics, air variable caps, giant toroid donut, shipping
> costs, etc, etc. (It's not exactly cheap.) Yet, the upside is the packaging
> is already taken care of by Vectronix... and that's always the nastiest
> part of any homebrew project. If you go for it, let us know how it turns
> out... certainly should _look_ like a tuner anyway ;)
>
> GL es vry 72 - Conrad - NN6CW
>
> ps.... hmmmmm. Ya know, I've personally spent over $25 packaging simple
> keyers. OK, go for it :-)
>
> *****
>
> > Hello, Lee -
> >
> > What I hear you saying is that for $80 you are going to get the
> following:
> > -> cabinet w/ S0239 's
> > -> meter
> > -> switch/knob
> > -> pilot lamp
>
> <snip>
```

Date: Tue, 01 Dec 1998 09:59:14 -0600
From: "Phillips Richard" <phillips@msoe.edu>
To: w5yr@swbell.net
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [26268] Re: BNC: NC40, 40A, Sierra, SST... K2... see a pattern here? :)
Message-ID: <36641252.452FBBAB@msoe.edu>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Right, I have an S Line and can't wait to change that cheap RCA jack to a far superior BNC. I have nothing but trouble with it. It is a lousy

way to do things. Shows to go ya, even Collins doesn't have all the answers. But QRP-L does.

Rich AA9L

George T. Baker wrote:

>
> Mel, before you really make up your mind on this matter, I suggest that
> you check with the engineers at Collins Radio who chose the RCA
> connector for the antenna connector on the S-Line and other Collins
> amateur radios.
>
> Surely there are some redeeming virtues to such an old, cheap connector!
>
> 72/73, George
> Amateur Radio W5YR, in the 53rd year and it just keeps getting better!
> AutoPOWER Systems, Fairview, TX (30 mi NE Dallas) Collin County
> QRP-L QRP-ARCI FISTS NORCAL ZOMBIE #522 ARS 10-X 33.2 N 96.6 W EM13RE

Date: Tue, 1 Dec 1998 08:02:10 -0800 (PST)
From: Monte Stark <ku7y@dri.edu>
To: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [26269] Re: CQWW Report - a bit longwinded - hit delete!
Message-ID: <Pine.SOL.3.96.981201075325.16048C-1000000@vortex>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Tue, 1 Dec 1998 Elekktron1@aol.com wrote:

> ..I'm glad someone else copied "6Y2A" as "BY2A".

When I worked Tom he was sending "6Y2A"!

73, Ron, SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

Date: Tue, 1 Dec 1998 11:08:34 -0500
From: "Gene Hall" <evhall@ix.netcom.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Cc: "Fonya Hall" <wa4hhp@amsat.org>
Subject: [26270] Re: Dans December Specials are up!

Message-ID: <00ac01be1d44\$da29b2a0\$45abbacd@#evhall>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Has anyone been able to access Dan's web page this morning?

I've had no luck at all.

73, Gene wa4hhp@amsat.org

-----Original Message-----

From: Jerry Parker <jparker@fix.net>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Date: Tuesday, December 01, 1998 1:50 AM
Subject: Dans December Specials are up!

>
>Dan has put up a super list of December Specials which even
>
>includes BNC connectors, including hardware at an unheard of
>
>LOW PRICE.
>
>
>Check it out at: <http://www.fix.net/dans.html>
>
>
>
>Enjoy,,,72,,Jerry...WA6OWR...K
>
>

Date: Tue, 1 Dec 1998 11:06:15 EST
From: Ab7wy@aol.com
To: qrp-l@lehigh.edu
Subject: [26271] Re: Question
Message-ID: <39f1baf5.366413f7@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

In a message dated 11/27/98 7:59:37 PM Pacific Standard Time,
ae4ic@nr.infi.net writes:

<<

I never sign /QRP in contests. The big guns really don't care what your power is, they just want you in the log. >>

This is true. i worked 5V7A in the contest in 96 without sending /QRP, sent the card WITH /qrp and was rewarded with the indication on the card along with a nice letter from the manager congratulating me for breaking the pileup with 5 watts.

they dont care during the contest, and most of the time they will just take your word for it if you send it to them on the card....as long as you get the time right and your call is clearly written in their log.

73....Adam, N7YA

Date: Tue, 1 Dec 1998 00:04:11 -0800
From: "Bill Todd" <bill@willapabay.org>
To: <ka7you@juno.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [26272] Re: NF3I now a 7-land-er!
Message-ID: <000201be1d44\$c9902000\$254ffbce@default>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

>Scott,

> Greetings from the Great NorthWe(s)t! Where the moss hangs heavy on
>the ladder line, the trees grow tall, and slugs should be the state
>animal.

Welcome to the NW Scott! Rod is correct about the slugs, but he forgot to mention that the old saying is true about the folks out this way...."We don't tan, we RUST".

CUL, Bill-N7MFB
<http://www.willapabay.org/~bill>
ICQ me @ 8926298

Date: Tue, 01 Dec 1998 10:11:51 -0600

From: James Parsons <k5rov@wcc.net>
To: qrp-1@lehigh.EDU
Subject: [26273] 1340 SOLD
Message-ID: <36641547.14E2EE7@wcc.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

The Ten-Tec 1340 QRP Transceiver has been sold.

73,

Jim, K5ROV

--

James (Jim), Parsons, K5ROV USAF, Ret. 58 yrs a HAM
k5rov@wcc.net, ICQ-17012707, QCWA, NWQRP, Fists, ARRL
EX: W1RLA, K5FBB, K4FEO, SV0WN (CRETE), SV0WN (RHODES),
DL4NC, DL4JP, KA2FC (JAPAN), KA2JP (JAPAN).
JOHN 3:16

Date: Tue, 01 Dec 98 10:52:39 -0500
From: Chuck Adams <adams@ticnet.com>
To: Ron Smith <resmith666@uswest.net>
Cc: qrp <qrp-1@lehigh.edu>
Subject: [26274] Re: Painting and TenTec Filters
Message-ID: <199812011649.LAA178848@nss4.cc.Lehigh.EDU>

Ron et.al.,

On and off is a term I use to mean that I turned on the oven
aperiodically, say three times during the day when I
happened to be in the kitchen looking for chocolate. :-)
Hey, the reason for losing 30+ pounds was so that I could eat.
I have Phyllis hide the stuff, but I can find it. Don't tell her. :-)
I let the oven get to 170 F and then turned it off until the next
time.

For older stoves, if it has a thermostat I'd put it on the
lowest heat possible and leave it for an hour then turn it
off and without opening the door leave the item being
painted for another hour or so. It's dry heat, the paint
will outgas the solvent(s) and dry to a very hard finish.
Hopefully silky smooth also.

I don't do very thick coats of paint on anything. Saving the environment and all that and I am pretty easy on equipment anyway. And if I scratch it I can redo it with the paint that I would have used for thicker coats. Though this got me into trouble with a can of RUST-OLEUM that I used about 1/4th of and now the gas is gone. The nozzle is not clogged as I use the upside to clear it. I think the paint mfg's do this to get us to use up all the gas. :-) That is, of course, not what I did and guess the little valve leaked slowly over a period of several months (maybe six?).

Also, since I'm the only one at home, I open the place up to vent the dangerous fumes, turn off the furnace (hey, it's still summer here in TX), etc. and leave the house while this is going on. The Krylon Engine Color #1909 Ford Blue is a beautiful color but I swear that it is the one paint that I have used that really outgases some bad stuff and smells terrible and/or strong. Use the precautions on all paint can labels - boys and girls.

For those that aren't as fortunate to have an understanding family I'd recommend the garage when it's warm, cover the item with a box to prevent critters and dust from spoiling the finish and leave it for a week untouched. Put it in the sun under glass might help also. Heat is your friend here my friends but not too much in the oven. Krylon advertises 300 degrees F on the Engine Paint, but no way I'm going anywhere close to that figure. I'm stupid enough to forget and reach in the oven to pick it up. I hate it when that happens.

Now these are my methods gang. Mileage may vary.....
I'd like to see someone that does this professionally write us up 1,000 words on how to do this. The definitive work, if you will. Hints and kinks for the paint impaired. THE COOKBOOK of PAINTING and LABELING. You know who you are. We've seen your work. Share. I'm the beginner here.

FYI es Ron tnx for the question

--

Chuck Adams K5FO adams@ticnet.com CP-60
<http://www.ticnet.com/k5fo>

Date: Tue, 01 Dec 98 10:57:34 -0500
From: Chuck Adams <adams@ticnet.com>
To: Jerry Bartachek <jbartac@max.state.ia.us>

Cc: qrp <qrp-1@lehigh.edu>
Subject: [26275] RE: CQ WW Report & Comments
Message-ID: <199812011654.LAA116886@nss4.cc.Lehigh.EDU>

Jerry et.al.,

Just a quick note and an exceptional observation on your part, i.e. the JA vs Europe propagation from your QTH.

One hop is fairly easy at QRP levels. The highest mi/watt numbers are single hop or LOS above 10 meters.

A double hop works best when the intermediate point is H2O. Fresnel, conductivity, reflectivity, and all those other buzz words come into play. Those QRPers that have land between them and the destination at the mid point for multihop have a tough row to hoe as they say.

Nice posting OM.

dit dit

--

Chuck Adams K5FO adams@ticnet.com CP-60
<http://www.ticnet.com/k5fo>

Date: Tue, 1 Dec 1998 09:58:49 -0600
From: "Marshall Emm" <mgemm@mtechnologies.com>
To: cqclist@mtechnologies.com, qrp-1@lehigh.edu
Subject: [26276] CQC Swap List
Message-ID: <199812011657.JAA04986@edison.chisp.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Content-Transfer-Encoding: 7BIT

There has been a problem with the web site submission form but it is now fixed. So if you would like to list something, go the the CQC Swaplist page at <http://www.CQC.org/swaplist.htm> and fill in the form, or send the details to me via e-mail. The list is also distributed by email, so just let me know if you would like to be put on the list.

73

Marshall Emm

N1FN/VK5FN

n1fn@MorseX.com

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(303)752-3382

--

Date: Tue, 1 Dec 1998 11:57:51 -0500 (EST)

From: Laura Denise Halliday <lha@sdr.utias.utoronto.ca>

To: qrp-l@lehigh.edu

Subject: [26277] Re: Switching power supply question

Message-ID: <Pine.SOL.3.92.981201114713.27619A-100000@madrox>

MIME-Version: 1.0

Content-Type: TEXT/PLAIN; charset=US-ASCII

Horowitz and Hill (naturally...) discuss the tradeoffs
in some detail between linear and switching power supplies.

The main issue is what you intend powering with it. If it
involves low-level signals, the switcher noise will drive
you nuts. If it involves high power, you'll probably appre-
ciate the low weight and high efficiency of a switcher.

For us QRP folks it rarely makes much difference (most
of my stuff runs off plug in wall transformers), but if I
was contemplating something like a solid state high power
amplifier I would definitely look at a switching supply to
produce 50 volts at 45 amps or so.

Watch out for minimum load requirements and DC isolation.
These will be spelled out in the power supply's data sheet:
the former is important to the power supply's health, while
the latter is important to yours.

Laura Halliday VA3LDH "Que les nuages soient notre
Grid: FN03gs pied a terre..."
 - Hospital/Shafte

Date: Tue, 01 Dec 1998 09:05:11 -0800

From: Bill Jones <kd7s@psnw.com>
To: qrp-1@lehigh.edu
Subject: [26278] WTB:Knobs
Message-ID: <366421C7.6CDE0FD4@psnw.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I am looking for some knobs similar to those found on the typical Japanese transceiver. I specifically want one of the larger (1 1/2 to 2" diameter) main tuning knobs as well as three or four of the long, narrow control knobs. These are needed for a homebrew transceiver project. Is anybody parting-out an old rig?

--

=====
Bill Jones - KD7S <><
Sanger, California
<http://www.psnw.com/~kd7s>
=====

Date: Tue, 01 Dec 1998 12:29:09 EST
From: we6w@juno.com (Ed Loranger)
To: kd4zkw@amsat.org
Cc: qrp-1@Lehigh.EDU
Subject: [26279] Re: Windows 98 funny....
Message-ID: <19981201.092132.4815.3.we6w@juno.com>

Kevin, the <SPAM> email I had at my work email account was something like 25 messages.

Tech_direct was one of them. I have no Idea who they are or whether this is a true offer or some way to get respondents onto a larger spam list.

Personally I've been a UNIX power user for over 11 years. The power of piped commands, scripts, shell protection etc. is a wonderful place to be. Unfortunately I've not used Linux yet.

I'm using Win 3.11 at home because it fits this ol' smokestack 386 computer built from misc. offshore parts :)

I have no Idea what win98/win95 can do. I hear winNT is great. Linux is great. Mac OS is great. Hey, I've installed O/S 2 2.1 back in 1994. I've Used it. Even had an external switch on

the computer in the back. Changed drive 0 to 1 and 1 to 0 so I could Boot O/S 2 by itself, because it doesn't work as a bootable partition in the DOS world.

Buy whatever you want. Boats Float. The specific gravity of salt water varies and sometimes the Boat rides higher or lower depending on which part of the world you are at. Find your comfortable cruising level and match the O/S to it.

Sometimes people read too deep. Perhaps this is my full Nickel's worth. So \$85.95 + \$.05 Hmmmmmm, I have Enough to "86" this issue.

Use the O/S that floats your boat.

Disclaimer:I don't sell squat. I own my own words and that is about all I own. I laugh with and not at. When I say I am tired, it is not that You tire me. I will never lie to protect my integrity. -Ed Loranger

On Mon, 30 Nov 1998 11:46:50 -0500 (EST) "Curtis D. Levin"

<kd4zkw@amsat.org> writes:

>On Mon, 30 Nov 1998, Ed Loranger wrote:

>

>#Just got a recent sale flyer. They have Windows 98 on

>#sale at some place using 'Tech_Direct' email address.

>#

>#They mention the low discount price of: \$85.95

>

>Question of curiosity. Is that a windows 98 upgrade, or the windows
>98 first time user price ? I checked out win98 at office max, and they
>wanted something in the neighborhood of 180 bux for it. That's way too
much

>for any OS in my book, and a good percentage of the reason why I ended
up

>using linux. OK, ttyl.

>

<snip of sig.>

72, Ed WE6W QRP-Z#106 <http://www.qsl.net/we6w>

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or call Juno at (800) 654-JUNO [654-5866]

Date: Tue, 1 Dec 1998 12:41:18 -0500
From: "Kevin F. Glynn" <kfglynn@prodigy.net>
To: "QRP-L" <qrp-l@lehigh.edu>
Subject: [26280] Signing /QRP
Message-ID: <199812011743.MAA83300@pimout4-int.prodigy.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi gang,

I agree that during contests signing /qrp probably doesn't do anything but have the pileup blow by me, but I do use it other times.

I've been working a lot of QRP SSB on 15 meters since the ARRL Nov SS a couple of weeks ago, with only 5 watts PEP, not 10 PEP. Kept at this level just to see what I can do DXwise for laughs. Ends up that I worked at least 12-15 (probably more, not sure) countries in casual operating during weekends on 15M. Ant is a 40M coax fed bent-leg dipole, shaped like a Z. Resonant on 40M CW and 15M SSB. Rig is IC-728 with processor and mic gain all the way up. Avg pwr is maybe a watt and a half or so. Rpts aren't 59 20 over, but I've been receiving between 51 and 55 reports. The ops are amazed at the power and simple antenna system.

The DX stations hear the "stroke QRP" or my barking N2T0 QRP QRP right after the pack lets loose and they tell the pileup to standby and only the QRP station go. I do this while working portable QRP as well and it does help at times.

72 Kevin N2T0
Brooklyn, NYC
kfglynn@prodigy.net

Date: Tue, 01 Dec 1998 12:44:01 -0500
From: mikemo@ibm.net
To: qrp <qrp-l@Lehigh.EDU>
Subject: [26281] TS-830 alignment
Message-ID: <36642AE1.57B4@ibm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Is there anyone on the list who is intimately familiar with the alignment of a TS-830, who wouldn't mind walking me through some "rough

spots"?

This rig won't load up properly on 10 meters but all other bands are good. It was suggested to do an alignment to solve the problem. Some of the steps are not very clear in the service manual. As not to "ham fist" the rig, I thought I'd ask first.

Thanks and 72
de ku4qo, Mike Maiorana, Palm Harbor, FL

Date: Tue, 1 Dec 1998 12:55:57 -0500
From: "Wilford D. Lindsey" <70511.3041@compuserve.com>
To: //QRP-L Discussion Group <QRP-L@Lehigh.edu>
Cc: "+Doc W.D. Lindsey/K0EVZ" <70511.3041@compuserve.com>
Subject: [26282] FOX on Tonight?
Message-ID: <199812011259_MC2-6205-D847@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: 7bit
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline
Content-Transfer-Encoding: 7bit

Gang:

Is there still a FOX scheduled for tonight (actually 12/02/98 at 0100)?
I have it down and want to confirm. Help?

72/73,
--Doc Lindsey/K0EVZ
DSBF
P.O. Box 7187
Bismarck, ND 58507
E-Mail 70511.3041@compuserve.com

Date: Tue, 1 Dec 1998 13:19:20 +0000
From: "Steven Weber" <kd1jv@moose.ncia.net>
To: qrp-l@lehigh.edu
Subject: [26283] Auto Bandswitch PIC
Message-ID: <199812011806.NAA18381@moose.ncia.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Content-Transfer-Encoding: 7BIT

Howdy,

A month or so ago, someone asked me if there was an easy way to make a circuit that could automatically select low pass filters in an add on linear amp. (Due to my recent HD crash and loss of saved email, I no longer know who that was)

I thought this was a great idea and could have a number of applications. It could be used to select filters in a rig that uses a DDS VFO, LPF's in an external linear amp, automatically select antennas, or anywhere you need to select something based on the operating frequency.

Due to the frequency counting abilities of the PIC cpu, I figured that would be the way to do it. Since I don't do PIC's, I passed the idea on to someone who does, in this case, Steve Elliot, K1EL.

Steve has pretty much finished the coding and is now testing the software. It should be ready soon. He's using an 8 pin PIC with binary outputs based on the input frequency. To select all the bands, a binary to decimal decoder chip will need to be added, along with a simple input circuit to condition the input signal.

Initially, we will just be offering the programmed PIC. If there is enough interest, it's possible we can latter offer the complete circuit with input circuit, b-to-d decoder and pcb.

We haven't determined a price for this yet, but should be quite reasonable for just the cpu. So, let us know if this device could be useful to you and we'll go from there.

72,

Steve, KD1JV in the white Mountains of New Hampshire
"melt solder"

Date: Tue, 1 Dec 1998 13:19:20 +0000
From: "Steven Weber" <kd1jv@moose.ncia.net>
To: qrp-l@lehigh.edu
Subject: [26284] 11-2-10 kits, sold out
Message-ID: <199812011806.NAA18387@moose.ncia.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Content-Transfer-Encoding: 7BIT

The 11-2-10 kits are all gone or spoken for. Thanks for the great

responce to this some what unique kit.

The conversion turned out to more of a challenge to some people than I expected, but I hope you enjoyed the experiance never the less. I also hope most, if not all, of these will be on the air soon.

72,

Steve, KD1JV in the white Mountains of New Hampshire
"melt solder"

Date: Tue, 01 Dec 1998 11:05:50 MST
From: "Jerry McCollom WOMC" <w0mc@hotmail.com>
To: qrp-l@lehigh.edu
Subject: [26285] Handful of 10-turn pots available -- first come first serve!
Message-ID: <19981201180551.23008.qmail@hotmail.com>
MIME-Version: 1.0
Content-Type: text/plain

Hi Everyone,

I have 5 10-turn 10K-ohm potentiometers leftover from the group buy. I thought I'd throw out one final offer to QRP-L instead of returning them. In case you missed the group buy in November, its your last chance!

If you want one (or more, or all of them) for \$7 each + \$3 priority shipping, send me e-mail -- they'll go to the first five or fewer takers!

Thanks & 72,

Jerry ("a 10-turn pot in every chicken" :-)
WOMC

Get Your Private, Free Email at <http://www.hotmail.com>

Date: Tue, 1 Dec 1998 10:08:30 -0800
From: dave_epps@juno.com
To: qrp-l@lehigh.edu
Subject: [26286] Computer Morse Kybd

Message-ID: <19981201.100830.-56775.1.dave_epps@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

FYI. I saw this package in the classified ads of QST. Rcvd it and it looks great.
WINCW - Windows program that sends cw only.
Includes a ready to use cable.
10 memories
Large type-ahead buffer "With backup Correction"
Transmit buffer display
CW3 - DOS program that sends and receives cw. Includes an interface kit that you build. (Now I can give the old XT a new life)
HTMorse - A cw keyboard program designed to teach morse code and to send morse code. (MCW) (MCW 11-2-10 rig????) (VHF/UHF MCW??)
Contact N0bf@juno.com (Stephen C. Stuntz)
Price is right. No connection>
dav e ab5pc fresno, ca.

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Tue, 01 Dec 1998 11:11:21 -0700
From: tom whalen <whalen@swcp.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [26287] Vectronics cw filter w/amp
Message-ID: <36643149.D8E@swcp.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

QRper's!

Wondering if anyone has tried the above unit? I was thinking about ordering one for my HW-8. The unit is on sale for about 24 bux.

72, Tom WB5QYT

Date: Tue, 01 Dec 1998 11:58:08 -0700
From: Niel Skousen <skousen@srv.net>
To: qrp-l@lehigh.edu
Subject: [26288] Re: Handful of 10-turn pots available -- first come first serve!
Message-ID: <4.1.19981201115447.009b9dd0@if.sciencetech.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

If you have even a slight inclination to do this, DO IT...
I got a couple from Jerry, and it sure beats the \$30 price that some places want..

Did one for my NC-40 kit, and it REALLY makes it a nice little rig. Also considering the SW-30+/SST20... oh well

Niel

At 11:05 AM 12/1/98 -0700, you wrote:

>Hi Everyone,
>
>I have 5 10-turn 10K-ohm potentiometers leftover from the group buy. I
>thought I'd throw out one final offer to QRP-L instead of returning
>them. In case you missed the group buy in November, its your last
>chance!
>
>If you want one (or more, or all of them) for \$7 each + \$3 priority
>shipping, send me e-mail -- they'll go to the first five or fewer
>takers!
>
>Thanks & 72,
>
>Jerry ("a 10-turn pot in every chicken" :-)
>WOMC
>
>
>
>-----
>Get Your Private, Free Email at <http://www.hotmail.com>

Date: Tue, 01 Dec 1998 13:24:05 -0600
From: "DONALD G. DORN" <DDORN@swbell.net>
To: QRP-L@LEHIGH.EDU
Subject: [26289] CQ WW CONTEST

Message-ID: <36644255.F4@swbell.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Had lots of fun Saturday in the contest. Worked 45 countries on 20M.
Some of them I have not been able to identify. Can anybody shed some
light on these? I couldn't find them on the DXCC list.

CALL	ZONE
ZZ2Z	11
S4IKW	15
TM9C	14
TM2Y	14
S57AL	15

73, Don K5AAR

Date: Tue, 1 Dec 1998 13:49:18 -0600 (CST)
From: "Jeff Logullo - SE Sun St. Louis" <Jeff.Logullo@Central.Sun.COM>
To: qrp-l@lehigh.edu
Subject: [26290] Feedline from basement ideas?
Message-ID: <199812011950.NAA07403@sunarch2.Central.Sun.COM>
MIME-Version: 1.0
Content-Type: TEXT/plain; charset=us-ascii
Content-MD5: pXxLftpVGx4jetuhq98o7A==

My shack is in the basement; the wall faces the backyard, and a low deck
adjoins the house at that point. I'm ready to drill through the side of the
house above the concrete wall of the basement.

I'd like to try balanced line, but have heard the line needs to be kept away
from objects at least the distance between the two lines. So if the feedline
measures 1" across, do I have to bore a 3" hole thru the house?

Or am I worrying too much about it?

I'd like to hear from anyone who runs balanced line through walls, up walls,
etc. Losses from adjoining objects (wood, metal, etc.); ideas about holding
balanced line in place as I make turns from the wall to antenna supports,
etc. I'd like to hear from others before I start drilling.

No, I don't have a window nearby... :-(

Date: Tue, 1 Dec 1998 14:51:31 -0500 (EST)
From: Bob Patten <n4bp@bc.seflin.org>
To: "DONALD G. DORN" <DDORN@swbell.net>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [26291] Re: CQ WW CONTEST
Message-ID: <Pine.3.89.9812011409.A1732-01000000@bc.seflin.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Tue, 1 Dec 1998, DONALD G. DORN wrote:

> Had lots of fun Saturday in the contest. Worked 45 countries on 20M.
> Some of them I have not been able to identify. Can anybody shed some
> light on these? I couldn't find them on the DXCC list.

>
> CALL ZONE
>
> ZZ2Z 11 Brazil
> S4IKW 15 Probably S51KW, Slovenia
> TM9C 14 France
> TM2Y 14 France
> S57AL 15 Slovenia

73,

Bob Patten, N4BP (0 0) Plantation, FL

-----o00o-()-o00-----

E-Mail: n4bp@bc.seflin.org
Web Page: <http://wg104a.wh.uni-stuttgart.de/~n4bp>
Brass Pounder BBS: (954) 472-7715

Date: Tue, 1 Dec 1998 10:58:57 -0900
From: Bruce Hopkins <bhopkins@ptialaska.net>
To: qrp-1@lehigh.edu
Subject: [26292] Address Change & Server Problems
Message-ID: <v03007802b289f3b2661a@[208.151.121.12]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi Gang...

Changing ones call can sure lead to a lot of paperwork snafu's...

Due to a recent call sign change, I changed my email address to reflect the new call... ISP failed to tell me that they would kill the old account immediately but take at least 2 or 3 days to install the new one !!! Interesting... Anyhow my new email address when they decide to install it will be:

OLD: k17jaf@eagle.ptialaska.net

NEW: k17h@eagle.ptialaska.net

The account that this is being mailed on will be valid until my other accounts get sorted out...

Take care and have fun... The bands are hot, see you on 10 meters later...

72 - Bruce - KL7H

Date: Tue, 1 Dec 1998 12:14:30 -0800
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)
To: <qrp-l@lehigh.edu>
Subject: [26293] Atlanticon Announcement
Message-ID: <01be1d67\$3479ff40\$630a0d0a@doug.dpol.k12.ca.us>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Guys, what an exciting announcement from George Heron about Atlanticon. His list of speakers is outstanding. First they announce that Dave Benson, L.B. Cebik, Joe Everhart and Steve Weber are going to talk, that in itself is a world class lineup. Then George follows that with Chuck Adams and Paul Harden!! Guys, if you live anywhere near Baltimore, I strongly urge you to make plans to attend. Paul Harden will be speaking for the first time in years on the East Coast, and he alone is worth the drive to hear. Mark the dates on your calender, give the Timonium Holiday Inn Select a phone call and nail down one of those reduced rate rooms now before they are all gone, and don't put it off.

Every one of the speakers is a regular, major contributor to qrp-l, but let me tell you from experience, that nothing compares with meeting and talking to all of these guys in person. Support the New Jersey Club and make Atlanticon a rousing success in its first year. Also, I would suggest that you plan on getting a room for Friday and Saturday nights, as you won't want to miss the social activities where you have a chance to talk one on one with all of your QRP friends.

What a great year 1999 is going to be. Think of the coverage that we have of Major Qrp Events planned in the US:

March - Atlanticon on the East Coast
May - Dayton upper midwest
June - Hamcom Southern and lower midwest
July - Ft. Tuthill, West
October - Pacificon, West Coast

Does it get any better???

By the way, this message was intended for posting to QRP-L. 72, Doug, KI6DS

Date: Tue, 01 Dec 1998 13:12:24 MST
From: "Jerry McCollom W0MC" <w0mc@hotmail.com>
To: qrp-l@lehigh.edu
Subject: [26294] Re: Handful of 10-turn pots available -- first come first serve!
Message-ID: <19981201201224.24543.qmail@hotmail.com>
MIME-Version: 1.0
Content-Type: text/plain

Wow, that was unbelievable!! They were all spoken for within a matter of minutes of my post. Thanks to everyone who participated in the group buy!

72,
Jerry
W0MC

Get Your Private, Free Email at <http://www.hotmail.com>

Date: Tue, 1 Dec 1998 20:09:36 -0000
From: "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
To: <kfglynn@prodigy.net>, "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>
Subject: [26295] Re: Signing /QRP
Message-ID: <006201be1d67\$46b11540\$22ebb094@t7w6w7>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

>I agree that during contests signing /qrp probably doesn't do anything but
have the pileup blow by me, but I do use it other times.

Not allowed in the UK. We have to use G3YCC (space) QRP not /QRP. The / is
only to be used for /M etc according to our licence regs. Just for your
info.

.....
Frank G3YCC
GQRP Club 042
(g3ycc@g3ycc.prestel.co.uk)
Award winning QRP Web Site:
<http://www.homeusers.prestel.co.uk/g3ycc/index.html>

Date: Tue, 01 Dec 1998 20:25:33 +0000
From: "Michael G. Heitmann" <michael.g.heitmann@boeing.com>
To: Jeff.Logullo@Central.Sun.COM, Low Power Amateur Radio Discussion <qrp-
1@Lehigh.EDU>
Subject: [26296] Re: Feedline from basement ideas?
Message-ID: <366450BD.D282C64@boeing.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

If you have a window nearby, consider replacing one of the glass panes
with
plexiglass. You can drill holes to mount things like feed-thru
insulators
or just a pair of threaded rods spaced correctly for your balanced
feedline.
Works for mounting bulkhead style BNC and UHF feedthrus too.

73 de N0S0 (formerly KF0S0)

--

Mike Heitmann

Telephone: 314-234-1906

E-mail: michael.g.heitmann@boeing.com

Date: Tue, 1 Dec 1998 15:34:01 -0500 (EST)
From: Bob Patten <n4bp@bc.seflin.org>
To: Frank G3YCC <g3ycc@g3ycc.prestel.co.uk>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [26297] Re: Signing /QRP
Message-ID: <Pine.3.89.9812011524.E11118-0100000@bc.seflin.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Tue, 1 Dec 1998, Frank G3YCC wrote:

>

> Not allowed in the UK. We have to use G3YCC (space) QRP not /QRP. The / is
> only to be used for /M etc according to our licence regs. Just for your
>

Interesting.. I recall doing the same years ago (space between call &
QRP). I wonder if something similar was ever in our FCC regs or possibly
still is. I'll defer to the experts on regs...

73,

Bob Patten, N4BP

(0 0)

Plantation, FL

-----o00o-()-o00-----

E-Mail: n4bp@bc.seflin.org

Web Page: <http://wg104a.wh.uni-stuttgart.de/~n4bp>

Brass Pounder BBS: (954) 472-7715

Date: Tue, 01 Dec 1998 13:44:54 -0700 (MST)
From: Gary Hembree <gary.hembree@asu.edu>
To: qrp-l@lehigh.edu
Subject: [26298] KH7 not Kure Island in CQWW
Message-ID: <3.0.32.19981201134501.00900640@imap4.asu.edu>
MIME-version: 1.0
Content-type: text/plain; charset="us-ascii"

Sorry folks, KH7R and NH7A were in Hawaii not on Kure Is. This change to
the KH7 prefix took place several years ago. Time to update the logging

>W3DW

>

Date: Tue, 01 Dec 1998 14:08:02 -0700
From: Niel Skousen <nskousen@scientechn.com>
To: qrp-1@lehigh.edu
Subject: [26300] RF Designs Book buy - aftermath
Message-ID: <4.1.19981201140157.009d5070@if.scientechn.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I just wanted to take a minute and thank all who participated in the group buy, and to tell the list how this little experiment went.

IT WENT GREAT - I had 100% support, nobody was in the least bit hard to deal with,
I handled over \$2400 of everyone else's money w/o incident or complaint...

It was a ton of work, my hats off to the Norcal and all other 'kit' handlers - absolutely amazing how much time the little stuff eats up ;-)

I even underestimated some shipping costs, and every individual pleasantly supported me in the clean-up !! In fact a number of folks included extra funds - to ensure that I did not get hurt by anyone else.

My wife was REALLY impressed with the little notes and the attitudes.

Thanks to All
Niel

PS: PLEASE let me know if anyone had problems getting their books, especially Pierre and Jon ! Also, a couple of folks have asked for another opportunity - I'm collecting e.mail's , maybe in February... ons

Niel Skousen: Sr.Eng, SCIENTECH.SPG/CFG, NUSI WA7SSA
208.525.3742, 524.9229 FAX 529.4721 Idaho Falls ID
nskousen@scientechn.com DN33wm . . . -z

Date: Tue, 01 Dec 1998 21:13:27 +0000
From: Ed Loranger <we6w@qsl.net>
To: qrp-1@lehigh.edu
Subject: [26301] Diode Protection/OHR-alignment.
Message-ID: <36645BF7.783F@qsl.net>

Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Howdy, fellow low power operating oficianados.

The 78m05 regulator in the Radio Adventures Frequency counter got replaced last night. Then I cut the power trace and installed a nice 400 mA protection diode in series. .6 to .7 Voltage drop is not an issue here. The device is rated 9 to 12 Volts and Is not an exceedingly essential piece of field equipment when the battery drops below 9.6 Volts. But I ran it off of 6 volts once, so there is a lot more range than they let on. It measured frequency within tolerance at 6 volts as well. So it is still accurate.

Do it and forget about polarity problems with it.

Of course I did the smoke test as well. -12 Volts and back to +13.8 and it came back to life.

Area of the cut trace and the area of the diode where it is tacked to the new supply line has been properly protected with epoxy.

Started at 9:30 PM local and done by 10 PM. Played with it until 11:PM and decided to open up the OHR-100 for a quick cal.

Also decided to finish the job on all the frequency determining areas that use toroids. Now they are fingernail polished, dried and right on freq. Hopefully this will minimize the drift I get when sending a long-winded monologue to detailed questions I often encounter during rag chews.

Also noticed the oscillator output signal designed for the external freq counter was a little weak. If you adjust the two varicaps for this, be warned we are talking thousandths of a degree rotation and you can be on the wrong harmonic. Finally got it just right again and stable digit in the 100 hz spot on the counter.

It sure is fun calibrating. Multiple waveforms converge nicely when viewed on the oscope, and it is obvious when they are off. What is not so obvious is which harmonic you have tuned to. It is nice to have the freq counter there, suddenly reading the frequency when you get it tuned in.

Then there is transmit offset and RIT. Opposite sideband rejection.

Simple, yet complicated. you tune up above the signal by 700 Hz, then as you tune higher, the tone goes lower. When you are 1400 hz above the signal, it is null. The kind of Fold the signal over to make this work. Very interesting. But if you are on the wrong side, you can get the signal to go lower as you tune up, then it goes higher again...

I think I finally got it right this time. But when the xyl found me standing over the rig, at 1:40 AM, hurriedly cleaning up the table, I knew I was done. <grin> No time to QSO at 2:00 AM. But tests against the pixie2 and a 3rd receiver show all the offsets are dead on.

It is going to be quiet in that opposite sideband for once.

Point? Well, it all starts with a thought, but you have to pick up the screwdriver and the alignment documentation.

But when the xyl says: "It's 2:AM and this is getting stupid..", it is time for bed.

Enjoying ham radio every day... and night! Oh, also spent an hour teaching the little ones some Yo-Yo tricks, and hugged 'em all. (Even my big boys who don't like it.)

--

72, Ed WE6W (CW only/VP-0); <http://www.qsl.net/we6w> Santa Rosa, CA
QRP-Z#106 QRP-L#1068 AR#112 NC#2227 ARCI#9397 QAA#006

Date: Tue, 01 Dec 1998 23:22:41 -0800
From: =?iso-8859-1?Q?Vicen=E7=20Ll=E0rio?= <vllario@eic.ictnet.es>
To: qrp-l@Lehigh.EDU
Subject: [26302] Grid Dip Meter LDM-810
Message-ID: <3664EAC1.71C7@eic.ictnet.es>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: quoted-printable
Content-Transfer-Encoding: quoted-printable

Hi all the QRP crew!

I recently bought an immaculate LDM-810 Grid Dip Meter at a flea market but with neither manuals nor coils. I would appreciate any feedback on where to find copies of the "users manual" and also where to buy the coils for it. Thank you in advance for cooperation and help de Vicen=E7

EA3ADV QRP, EA-QRP # 4, G-QRP # 7384, ARCI # 8454, Norcal # 2570, QRP-L

1152

Date: Tue, 01 Dec 1998 21:31:28 +0000
From: Arjen Raateland <Arjen.Raateland@vyh.fi>
To: QRP-L <QRP-L@lehigh.edu>
Subject: [26303] Power measurement on 2 m and 70 cm with directional coupler?
Message-ID: <36646030.3B92@vyh.fi>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi all,

I have a technical question that somebody on this list may know the answer to.

Diamond markets an SWR/Power meter type SX-400 with one single directional coupler for use on both 144 and 430 MHz that has no frequency band switch.

Directional couplers of the type commonly used on VHF and UHF with three parallel transmission lines (or two links next to a transmission line if you like), are very dependent on frequency. If the coupling factor is -20 dB on 2 m it is more like -30 dB on 70 cm.

How would this be compensated for when there is no band switch (i.e. I've been told by the sales person that there is no band switch!). The meter has high sensitivity and the lowest range is 5 W. See, there was a QRP connection after all, hi.

TIA,

--

Arjen Raateland
SAS Support
Finnish Environment Institute, Helsinki

AX.25: OH2ZAZ@OH2RBI.FIN.EU

Date: Tue, 1 Dec 1998 15:35:58 -0600
From: applitech@mcg.net (Claton Cadmus)
To: "QRP-l" <qrp-l@lehigh.edu>, <Jeff.Logullo@Central.Sun.COM>
Subject: [26304] Re: Feedline from basement ideas?

Message-ID: <001901be1d72\$a3cdbfc0\$a10a5e2c@groucho>

OK, I use the stuff and here's how I do it. I run coax out of the house to a balun, which in nothing more than 30 feet of RG-58 (solid poly dielectric, not foam) wound around a few inches of 3"-5" diameter PVC pipe. This gets me by the house wiring. pipes and ductwork etc.

You can run the balanced line into the shack too, really not a problem just make sure you keep the line a few inches away for parallel metal objects. Crossing by a conduit or pipe the runs perpendicular to the line is really not a problem. You only need to drill a clearance hole through the wood, in fact the easy way to do it is to drill two small holes spaced a little wider than the line and use some number 8 machine bolts and wing nuts as through terminals. Crimp and solder eye lugs to the balanced line on the ends attached to the bolts. I hope that was a good explanation, each bolt becomes a connector for one side of the line. Even easier is to use a couple short lengths of insulated house wire passed through holes just the right and size spaced about right. Then wire nut the ladder line inside and out. Yeah that's the ticket. Might not look good but will work FB. No one will see it under the deck and up near the ceiling in the basement.

Here's some more good tips.

1. The wireman is now selling 300 ohm ladder line, great stuff. (\$0.17 at foot!) I just brought 100ft to replace my ten year old 450 ohm line. It's smaller and less noticeable, which the y1 will appreciate.

2. The 300 ohm stuff can be used with regular TV twin lead standoffs. These standoffs are easy to use too. Just screw into the side of the house, tree, whatever. Make sure you position the line across the slot, mount the standoff so a "ladder" is in the standoff and rotate the slot around to close the standoff. (this will make sense when you see one.)

3. Turns, keep the turns gentle, no sharp bends. As a rule keep the radius of the bend about 10 times the width of the line. With 300 ohm ladder line the bend should be about the radius of a one gallon paint can as a minimum.

4. Twist the line about 1 turn per foot. This will distribute any nearby effects to both side of the ladder line evenly and keep it balanced.

5. All this stuff is a good thing to do, but if you can't do it perfect, don't sweat it. It will work anyway and probably better than coax. Not to mention at about 1/2 the price.

6. If you really want to save money, buy the cheap TV twinlead at Wally-World or Radio Shack. It will work just as well at QRP levels but might not last as long. If you plan on changing antennas allot and

experimenting it's a good value. The only other precaution is to make extra sure you support and immobilize the connection to the antenna, the soldered wire connection will not do. Of course this is good advice no matter which feedline you are using. Also a coating of auto wax will reduce the effect on the 300 ohm twinlead during rain.

Hope this Helps!

73 de KA0GKC Claton Cadmus

cla@mcg.net

MNQRP #1

Minnesota QRP'ers we're looking for you!

Email me or visit this page <http://www.qsl.net/mnqrp>

Date: Tue, 01 Dec 1998 14:41:18 -0700

From: Dan Tayloe-P26412 <Dan_Tayloe-P26412@email.mot.com>

To: we6w@juno.com, qrp1 <qrp-1@Lehigh.EDU>

Subject: [26305] Re: Resonant Speaker MEASURED RESPONSE.

Message-ID: <3664627E.EFE5CF61@email.mot.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Content-Transfer-Encoding: 7bit

>The long awaited for measured data has been taken.

>I'd have a lot more data, but did all the testing inside the
>warm house. Unfortunately, the long and strong tones are
>met less enthusiastically by the family than when I'm
>in the garage making noise.

Sounds like my crew when I use the receiver in the other
room to monitor for "chirp" during transmitter testing.

Video game racket is ok, but high level CW produces headaches.

Go figure..... :^)

- Dan Tayloe, N7VE, Phoenix, Az; Az ScQRPions; QRPL # 696

Date: Tue, 01 Dec 1998 15:38:41 -0600

From: Ed Manuel <n5em@flash.net>

To: qrp-1@lehigh.edu
Subject: [26306] Want to buy
Message-ID: <3.0.5.32.19981201153841.008f9cb0@pop.flash.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

>Please respond to George directly at wa5abs@amsat.org or pierce@rice.edu

>

>Ed, N5EM

>

>

>>From:pierce@rice.edu (George F. Pierce)

>>Subject:Want to buy

>>

>>I want to buy MFJ 971 tuner (the one that matches their QRP transceivers)

>>If you want to sell or can

>>refer me to someone who wants to sell, please call me at 713-669-9060.

>>

>>

>>72

>

>George F. Pierce III

>WA5ABS M0B0D

>Email: pierce@rice.edu

>

>

>

>

Ed Manuel, N5EM

Houston, Texas

n5em@amsat.org

n5em@flash.net

Date: Tue, 01 Dec 1998 14:56:29 -0700
From: Dan Tayloe-P26412 <Dan_Tayloe-P26412@email.mot.com>
To: KeithJ@1800surveys.com, qrp1 <qrp-1@Lehigh.EDU>
Subject: [26307] Re: Technical question
Message-ID: <3664660D.3517AAA@email.mot.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

>I am looking at a receiver circuit for a QRP rig. It shows

>four crystals in series with 4 capacitors connecting between
>the crystals (each is connected right before the crystal with
>which it is associated). The capacitors go to ground. At
>the end of the four crystals there is a capacitor in series
>and that cap connects to the center of a coil. The extreme
>ends of each side of the coil go to an op amp that acts as
>the AGC device.

>My conclusion:

>To get a wider bandwidth only on the "good side" of the BFO
>I suspect I need MORE crystals to pass a wider bandwidth
>(that NORMALLY would be taken to ground by the capacitors).
>There probably no inexpensive substitute for more crystals
>in this function am I right?

>Keith KB8FE

You probably already have a few responses on this. Just
decrease the value of the Cs to widen the filter. Doing
so will also increase the characteristic impedance of the
filter, so it probably won't be terminated quite right
any more, but it will probably work fine anyway.

In a lot of the 4 MHz filters I have built, about 300 pf
is used to get a good, tight, fox hunting cw filter, while
30 pf is used to get SSB type bandwidths. I suggest reducing
the caps to one third and see if you like what you get.

The Serria actually uses vericap diodes in place of fixed
caps so that the receiver bandwidth can be varied.

- Dan Tayloe, N7VE, Phoenix, Az; Az ScQRPions; QRP # 696

Date: Tue, 01 Dec 1998 22:25:46 +0000
From: Ed Loranger <we6w@qsl.net>
To: qrp-1@lehigh.edu
Subject: [26308] Test Equipment = More fun!
Message-ID: <36646CEA.1FF8@qsl.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Wow. Just inherited a nice 150 pound double box. No cardboard here!

This is a bottom and top instrument stack. What is it? Well, it goes from 100 Hz to 1.5 GHz and has the words "Spectrum Analyzer" on it!

Yes! Last time it was turned on was over a year ago to test if the power cord still works :^D

This one is excess at work and when I get the guts to ask, it will be going to my qth as a long-term loan! Just fill out the equipment home-loan application and property pass and get it home.

And I already have the 10 Watt RF limiter to put on the front end.

It is amazing what one can do with PVC/Duct tape and \$0.59 cent speakers.

I look forward to inventing the acoustic warp drive with this thing.

I'm ready to beam up, Scotty! "Buy you need to stop dancing, sir."

--

72, Ed WE6W (CW only/VP-0); <http://www.qsl.net/we6w> Santa Rosa, CA
QRP-Z#106 QRP-L#1068 AR#112 NC#2227 ARCI#9397 QAA#006

Date: Tue, 01 Dec 1998 17:21:18 -0500
From: mikemo@ibm.net
To: qrp <qrp-1@Lehigh.EDU>
Cc: kenwood <kenwood@qth.net>
Subject: [26309] TS-830 Alignment problem
Message-ID: <36646BDE.4A87@ibm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I guess I should have included a bit more info on my ts-830 problem.

Symptoms were:

- 1) Could not peak the load cntl on 10 meters. Max output was full CCW.
- 2) Only got about 30 watts out on 10.
- 3) Similar problem with 30 meters.

I went through the transmit drive coil alignment.
10 and 30 were way out.

After adjustment, all bands except 10 tuned Okay with about 80-85 watts out. 10 was still bad. I got no ALC deflection at all in the tune position, even with the carrier cntl all the way up. I peaked the drive cntl by looking at the watt meter. The tune process was a bit more normal with all controls in their normal range. Only 50 watts on 10 meters.

I confirmed the accuracy of my watt meter using a calibrated 100Mhz o-scope across the dummy load.

Again, any help will be greatly appreciated.
de ku4qo, Mike Maiorana, Palm Harbor, FL

Date: Tue, 1 Dec 1998 15:09:55 -0800 (PST)
From: Jim NOUR <n0ur@yahoo.com>
To: QRP-L QRP-L <qrp-l@Lehigh.EDU>
Subject: [26310] FOX TONIGHT!! NOUR
Message-ID: <19981201230955.14070.rocketmail@send206.yahoomail.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Sorry for the late note, but I was a hour and a half from blowing my turn as fox, I thought it was next week. I can't believe it.

Anyway, look for me above 7.040.....43 to 45. I will try and work as quickly as we can, so listen and spread out. You all get 599s tonight. I have lots of noise this winter on 40 but I will do my best.

72's es gl, see you on the bands

Jim, NOUR (599 MN JIM #799 or 7NN)

DO YOU YAHOO!?
Get your free @yahoo.com address at <http://mail.yahoo.com>

Date: Tue, 01 Dec 1998 17:10:20 -0600

From: Michael Melland <badger@vbe.com>
To: mikemo@ibm.net
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [26311] Re: TS-830 alignment
Message-ID: <3664775C.6902@vbe.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Mike,

Sounds like weak tube(s) to me. The first sign they are going is seen on 10 meters. Email me privately with some additional info on the symptoms and I'll see if I can help..... former TS-830S owner (and lover..... err the rig I mean <grin>.

73

--

Michael Melland, KB9QHU
Winneconne, Wisconsin, USA
FISTS #4387, 10-10 #69281, QRP-L #1656
CW, SSB, and Electronics
List Administrator: grundig@qth.net
<http://www.vbe.com/~badger>
<http://www.qsl.net/kb9qhu>

Date: Tue, 1 Dec 1998 18:14:58 EST
From: DENNISMO@aol.com
To: qrp-1@lehigh.edu
Subject: [26312] USERM ...? Not QRP
Message-ID: <87b3852b.36647872@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi Gang ...

Is anyone here a member of the United States Emergency Radio Monitors or know anything about the organization? - See website link below. Please let me know by direct e-mail... Thanks

USERM

73 es God Bless de Denny AD6EZ<><

Date: Tue, 01 Dec 1998 23:21:08 +0000
From: Ed Loranger <we6w@qsl.net>
To: qrp-l@lehigh.edu
Subject: [26313] Spectrum Analyzer is mine!
Message-ID: <366479E4.49FA@qsl.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hey gang, I got it! Went thru the Boss and it's all mine
starting tomorrow when we sign the papers!

I feel like I just worked 10 foxes with my GDO and a
knife switch key at key at 40 WPM with 599 reports
all around using capacitive coupling to my ground
wire for an antenna!

And a FB SWL QSL report of 579 and "Good Fist" from
ham in Antarctica who heard me when he pulled the dummy
load off his rig and heard me.

--

72, Ed WE6W (CW only/VP-0); <http://www.qsl.net/we6w> Santa Rosa, CA
QRP-Z#106 QRP-L#1068 AR#112 NC#2227 ARCI#9397 QAA#006

Date: Tue, 01 Dec 1998 17:29:27 -0600
From: Bob Liesenfeld <wb0poq@visi.com>
To: QRP-L reflector <qrp-l@lehigh.edu>
Subject: [26314] Color codes
Message-ID: <36647BD7.32EA269B@visi.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi gang,

While not QRP per say, I thought you might like to help out:

I teach a basic electronics lab class, and am looking to round up any and all
resistor color code memory keys. Such as Bad Booze Rots Our Young Guts But Vodka
Goes Well and so on. Any to offer? You will get full credit on the handout!

Tnx es 72

Bob 'POQ

--

Genuine E-mail From the Land of the Everlasting Icicle...

Bob Liesenfeld

wb0poq@visi.com

Date: Tue, 1 Dec 1998 08:26:54 -0800

From: "Radman" <radman@best.com>

To: <dave_epps@juno.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: [26315] Re: Computer Morse Kybd

Message-ID: <199812012332.PAA26502@proxy4.ba.best.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=ISO-8859-1

Content-Transfer-Encoding: 7bit

Content-Transfer-Encoding: 7bit

Dave,

Perhaps I mised it. What's the *price* of this package?... I didn't see the QST ad.

72 - Conrad - NN6CW

> FYI. I saw this package in the classified ads of QST. Rcvd it and it

> looks great. WINCW - Windows program that sends cw only.

> Includes a ready to use cable. 10 memories

> Large type-ahead buffer "With backup Correction"

>

<snip>

End of QRP-L Digest 1293
